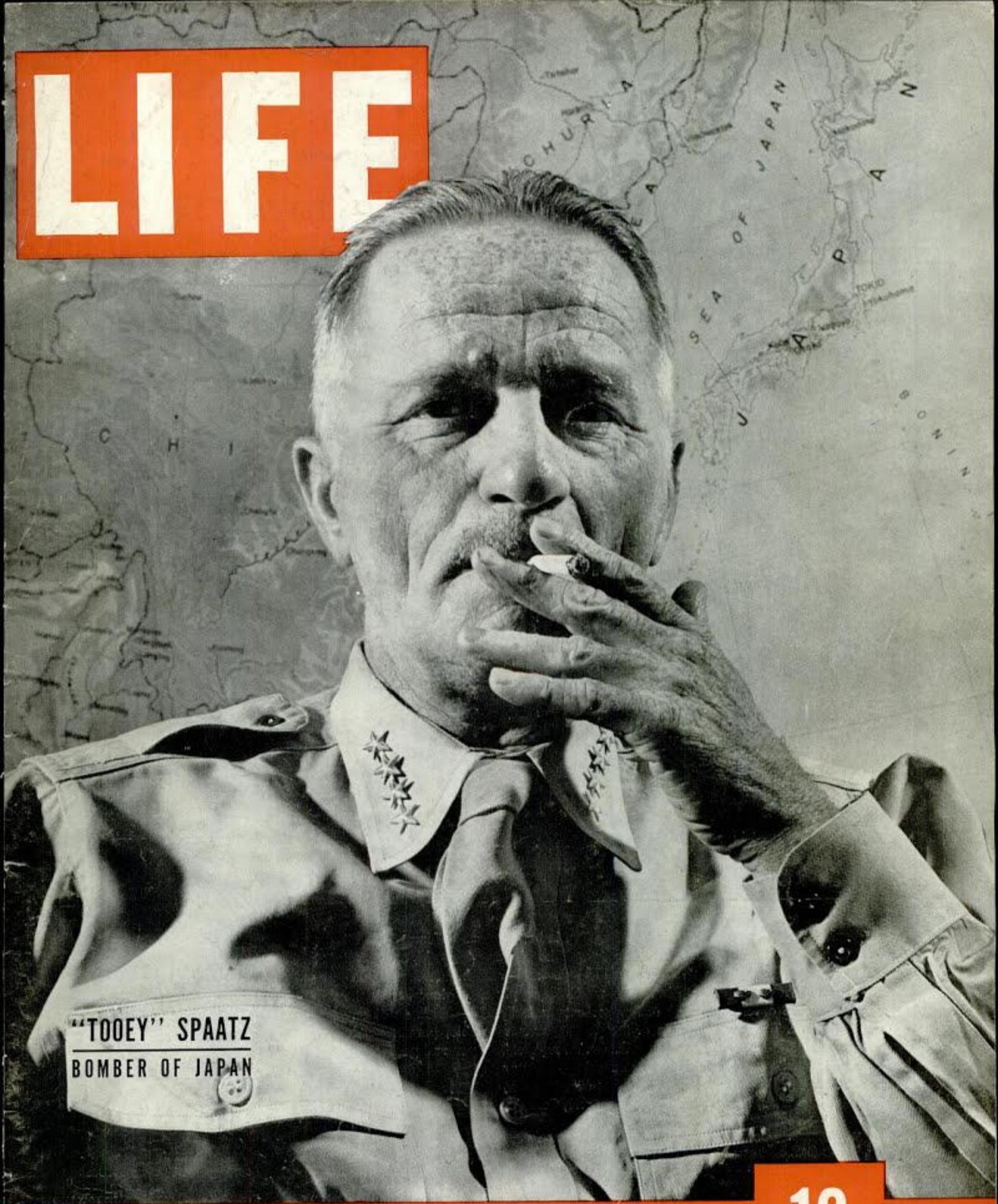


LIFE



“TOOEY” SPAATZ
BOMBER OF JAPAN

AUGUST 20, 1945 **10** CENTS
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Color photograph by Egon De Poy

Sheaffer's new, completely-redesigned writing instruments are different from all others—not just to be different, but to be better! The bigger, 14-K gold, cylindrical *Lifetime** point of the pen writes with effortless ease—and houses the largest-capacity fluid feed. The Radite barrel shows SKRIP supply at a glance. Even the new clasps are different—adjust themselves automatically to the thickness of any clothing fabric. The new sleeve-tip of the pencil prevents wobble, permits visible writing, reduces lead breakage to the minimum. Throughout both pen and pencil you'll note the results of precision craftsmanship—greater beauty and better performance. W. A. Sheaffer Pen Co., Fort Madison, Iowa, U. S. A., and Toronto, Ontario, Canada.

VALIANT "TRIUMPH" pen, \$12.50; pencil, \$5.00; complete set, \$17.50. Other sets, \$3.95 to \$150. Other pens, \$2.75 to \$100. Colors: Golden Brown, Marine Green, Carmine, Grey Pearl and Black. Federal excise taxes additional.

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*Lifetime**
POINT

THE WHITE DOT
ON THE PEN
IDENTIFIES IT!

SHEAFFER'S

New TRIUMPH Pens



New Fineline Pencils

These are the pens and pencils that are going to the men and women in the Services overseas. Quantities available for civilians are very limited.

LISTEN EVERY SUNDAY to SHEAFFER'S WORLD PARADE—NBC Complete Network, 3 P.M. E.W.T.; 2 P.M. C.W.T.; 1 P.M. M.W.T.; 12 P.M. P.W.T.

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**A SIX LETTER WORD MEANING
"THE BEST TOOTH BRUSH BRISTLE" ...
THAT MUST BE PROLON!**



For years only hog bristle made fine tooth brushes. Then Science made round-end **PROLON**



Far and away the best of the new synthetic tooth brush bristles, being marketed under various trade names, are those made by duPont.

"Prolon" is our trade name for the very finest grade of this duPont synthetic bristle.

PROLON — no finer bristle made

So, when you read or hear competitive tooth brush claims, ask yourself this: *How can the same duPont bristle, in another brush under another name, last longer or clean better than under the name "Prolon" in a Pro-phy-lac-tic Tooth Brush?* You know the answer . . . it can't!

Only PROLON has "round ends"

Pro-phy-lac-tic's big *plus* is that Prolon is the only synthetic bristle that is rounded at the ends.

It's a fact! *Under a special patented process, exclusive with Pro-phy-lac-tic, we smooth and round the end of each and every Prolon bristle in the Bonded Pro-phy-lac-tic Tooth Brush.* See for yourself how much gentler these round ends are on tender gums!

And with PROLON these other "extras"

In addition to Round-End Prolon, the Bonded Pro-phy-lac-tic Tooth Brush gives you these three important "extras": 1. The famous Pro-phy-lac-tic end tuft, for ease in reaching hard-to-get-at back teeth. 2. Scientific grouping of bristles to permit thorough cleansing of brush after using. 3. A written guarantee for six full months of use.

Next time, get the most for your money . . . get the Bonded Pro-phy-lac-tic Tooth Brush.

PRO-PHY-LAC-TIC BRUSH CO., Florence, Mass.



**LETTERS
TO THE EDITORS**

CONSCIENTIOUS OBJECTORS

Sirs:

Your article in LIFE, July 30, on conscientious objectors starving themselves as "guinea pigs" was very enlightening to me and my family. I had no idea that these so-called "shirkers" are really doing a brave and humanitarian work.

B. WARREN STANLEY

Logansport, Ind.

Sirs:

The men serving as guinea pigs at this hospital for the Office of Scientific Research and Development on a nutritional experiment would like to echo the plea made by the men at Minnesota. We earnestly ask that Congress repeal the law which prohibits conscientious objectors from serving abroad.

MIRL W. WHITAKER

Rochester, N.Y.

• No law prohibits conscientious objectors from serving abroad. Selective Service divides them into two classes, those who object to any kind of military service and those who object only to combat. The latter can—and do—get sent overseas.—ED.

KIDS IN SAND

Sirs:

Lane Delbridge, my granddaughter whose picture appears on the cover of LIFE, July 30, is not a North Carolinian as stated by you but is a native of Notasulga, Ala.

MRS. CLARENCE C.
DELBRIDGE SR.

Notasulga, Ala.



NOTASULGA'S GIRL

Sirs:

If children can have as much fun on a sandy bathing beach as your story suggests, you can imagine what a time they would have with a whole desert



full of sand. As proof I submit this picture of our young son Fred Jr. padding through the sand with an entire Colorado desert still to be investigated.

FRED A. BAUGHMAN

New York, N.Y.

KAMIKAZE

Sirs:

Thank you for your splendid article on the Jap Kamikaze (LIFE, July 30). I am sure that as a result of the article many people, who formerly regarded this Japanese weapon as a mere figment of the propagandist's mind, now have a



**"Stick to
your etchings,
Mr. T!"**

"Your etchings are fine, my friend. But your advances leave me limp... and not from admiration, either!"

"Why don't you use Mum!"

"Underarm odor isn't just something that happens to us weak, frail little women, Mister."

"It happens to men, too!"

"You, for instance! And maybe you think people don't mind underarm odor in a man. Well—they do, Mister. "And it's time you learned that nice men, smart men guard against underarm odor... and give people a chance to like them! Try Mum!"

• **NOTE TO HIM (and you?)**

You can't count on a shower to keep you from risk of offending. But 30 seconds with MUM... a dab under each arm... will keep you safe all day or all evening. Mum won't harm shirt or skin. Get a jar today!



Product of Bristol-Meyers

**Mum helps a man to
make the grade!**



PACIFIC TELEPHONE BOOTH . . . U. S. MARINE, BURROWED IN HIS FOXHOLE, TELEPHONES FOR ARTILLERY SUPPORT TO WIPE OUT JAPANESE MORTARS.

From factory to foxhole it's a telephone war

In just one landing operation against the Japs, our Navy used more than seven hundred ships equipped with 48,000 telephones. With their switchboards and associated equipment, that's enough to serve a city of 160,000 people. These shipboard telephones were equipped with 5,000,000 feet of wire.

Add to these figures the needs of other naval units and the millions of men in the Army's ground and air forces and you get some idea of the tremendous amount of communications equipment required by war. It helps to answer the question of why telephone equipment is scarce on the home front.

BELL TELEPHONE SYSTEM



This One



A9L0-ZJS-NLKE

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We've got that "Millionaire Feeling" now



We're a long way from the upper income brackets, but we've got that "millionaire feeling" now . . . and it took a millionaire to give us the idea. He was stepping out of a swanky limousine when Sally squeezed my arm.

"Don, I've just realized what a millionaire's got that we haven't!"

"Sure, money," I answered.

"Yes, but it's more than that. It's security."

"Aren't you forgetting my Social Security?" I quipped.

"No, I'm not," she said, "but seriously, Don, how much do you really know about Social Security benefits? Will they

amount to enough to give me . . . us . . . real security?"

A few days later I found a booklet beside my dinner plate, and it certainly opened my eyes. Why, if anything happened to me, Sally's income from Social Security would only be about \$30 a month, and if she took a job to give her additional income, she wouldn't receive any Social Security benefits.

But Sally and I are both happy now, because I invited a Mutual Life Representative to sit in on our family problem. He showed us how a reasonable amount of Life Insurance teamed up with Social Security would give us real security. We may never live in luxury, but now we can look forward to retiring in comfort and dignity.

FREE SOCIAL SECURITY HELPS . . . An instructive and helpful BOOKLET for calculating future benefits from Social Security and your Life Insurance . . . plus a handy FILE for keeping together, in one convenient place all the official records you will need later to collect Social Security benefits without costly delay. Mail the coupon today.

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Lewis W. Douglas, President

NEW YORK 5, N. Y.



NAME AGH

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OCCUPATION L-5-21

VETERANS: KEEP YOUR GOVERNMENT LIFE INSURANCE!

LETTERS TO THE EDITORS CONTINUED

new outlook on the measures the enemy will take to prevent our ultimate victory.

SHERWIN SHARAN
New York, N.Y.

Sirs:

. . . We should like to present our idea of how to prevent the Japs from hitting our ships.

Up to now our Navy has been using smokescreens spread by airplanes to conceal the movements of our ships from the eyes of the enemy. Our suggestion is to equip our ships with smoke-screen attachments built in such a way that the ship will be continually hidden from above even when making progress. The smoke could be forced ahead or off the side of the ship, surrounding it and thus handicapping the Kamikaze in determining their target.

ARNOLD KROENING
GUSTAV WETHEIMER
Sheboygan, Wis.

SPANNING

Sirs:

Please tell Anne Davis, the girl who wrote you the letter about being spanked, (Letters to the Editors, LIFE, July 30), that she isn't the only 19-year-old girl who gets spanked. . . .

I love my daughters and I believe they are really good girls, but like all children—even at 19—they need punishment. For example, when Doris, my 19-year-old, came in at 4:30 a.m. last Sunday . . . I used a hairbrush and then a belt on her bare backside—I doubt if she stays out so late again. . . .

ROBERT D. SHERWOOD
Brooklyn, N.Y.

Sirs:

. . . I heartily agree.

After spending two years in Italy I came home to find my wife in a set of the briefest shorts I ever laid eyes upon. Around the house it was all right, but she insisted on wearing them downtown and to the movies. I got nowhere trying to reason with her. So I spanked her while she was wearing those shorts and you can bet your life I didn't take it easy. The result—my wife was a perfect lady during the rest of my furlough.

S/SGT. JOHN BAKER
Camp Butler, N. C.

CONTINUED ON PAGE 6

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LIFE
August 20, 1945
Volume 19
Number 8

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Since 1877*



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It is not necessary to have a "higher education" to appreciate these books; and, after you read and know them, you will have acquired a broader and more liberal education than most of your business and personal acquaintances.

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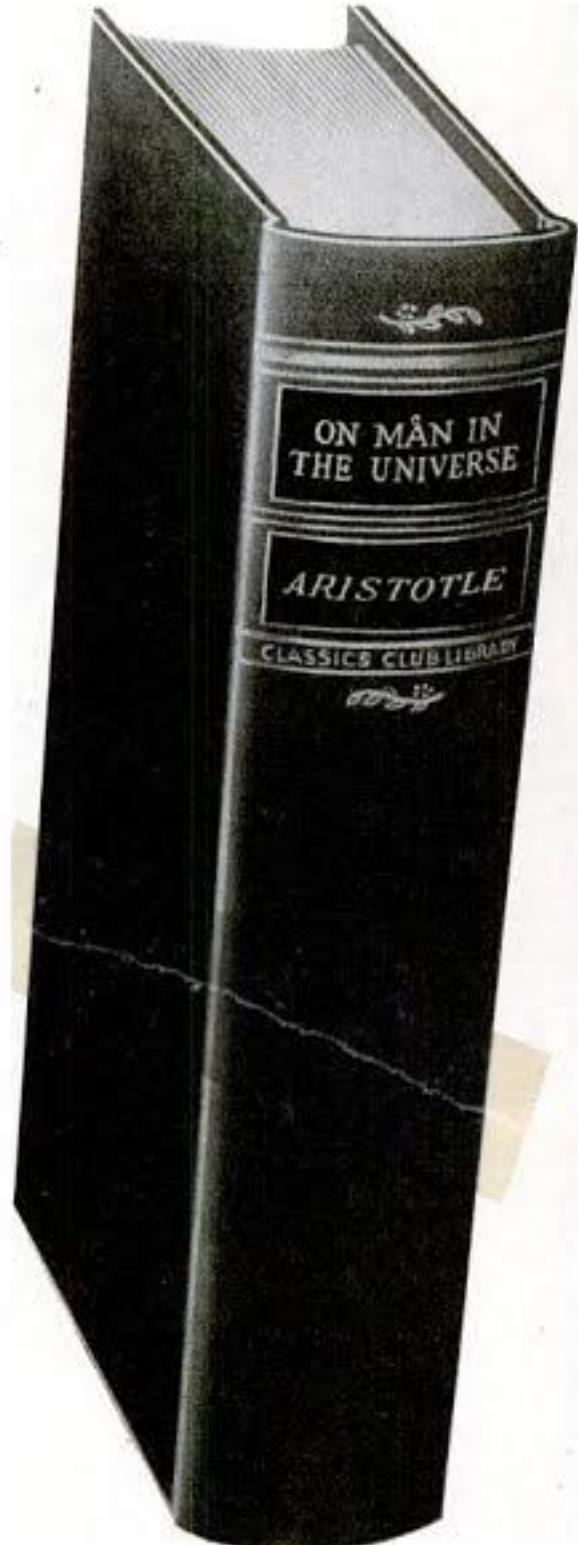
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"Fireman—save my child... from
Prickly Heat!"



"Don't let your baby's skin get hot and bothered!"

"Hot weather doesn't bother me, no Maam! My skin feels healthy and comfy—thanks to mild, soothin' Mennen Antiseptic Baby Powder. Get it for your baby now to help prevent prickly heat, urine irritation, chafing, many other troubles. Here's why I say Mennen is best:

1. More baby specialists prefer Mennen Antiseptic Baby Powder than any other baby powder (3 out of 4 doctors say baby powder should be antiseptic).*
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3. Makes baby smell so sweet... new, mild flower-fresh scent!



"Mom also uses MENNEN ANTISEPTIC BABY OIL to help keep my skin in the 'pink of condition'. More hospitals use it... more doctors recommend it... more mothers buy MENNEN BABY OIL than any other!"

LETTERS TO THE EDITORS CONTINUED

DISPLACED PERSONS

Sirs:

I have been right in the middle of this "Displaced Persons" problem (LIFE, July 30). When the war in Europe was coming to a close at the end of April, the air supply planes of my outfit, the 27th Air Transport Group, were evacuating thousands of liberated American, British and French prisoners of war.

Here is the picture of a French soldier captured at the very beginning of the war, who suffered in a score of Nazi



concentration camps before his liberation by the onrushing Allied armies.

He was in such a weakened condition when he left the C-47 that two members of the French Military Corps of Registration had to help him stay on his feet. The facial expressions of the latter are at once a study in bitterness and compassion.

CAPTAIN VERNON L. SMITH
c/o Postmaster
New York, N. Y.

Sirs:

There isn't any question as to the allegiance of these Russian displaced persons, is there? The American Army is sending them back to their homes in the only transportation available—rough though it is.

This picture was taken in Würzburg, Germany, around the first of June. All



of the cars were decorated with green branches, and many of them had large pictures of Stalin and Russian generals on them.

Let those who may complain of the rail transportation difficulties in the United States take note of this—the prevalent Continental mode.

JAMES M. SAYERS
c/o Postmaster
New York, N. Y.

Sirs:

"Face-saving" is not limited to the Japanese only, is it? The serene sweet-faced Dutch women indulge, too... What kind of a mother could be reluctant to see her own offspring after several years? ... Perhaps they did some wrong things. But it's playing right into those still-eager Nazi hands to set up these girls indirectly as disgraceful examples, shaming them as products the Netherlands wants nothing to do with. Teen-agers are barely forming their ideas, using their minds; they need as much guidance as at any other age...

Perhaps the local bingo club will whisper sly things, but which is more important, that or the girls as future adult Dutch citizens?

Germany had the best of everything they could rout and rob from the rest of Europe. If the girls were "skillful scroungers" naturally they could obtain ample sustenance. There is no ter-

WEAREVER

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STAND-OUT in 3 new ways

\$2.75



Wearever Pacemaker set in fine gift box, \$3.75

1. NEW VALUE: 14 Karat Gold point; larger ink capacity; "C-Flow" feed; telescope-precision construction.

2. NEW "WRITE-ABILITY": Finest, smoothest-writing pen ever made by America's Largest Fountain Pen Manufacturer.

3. NEW BEAUTY: Advance, fit-the-hand design, interpreted in distinctive pearly stripes. In maroon, golden brown, green and black; with matching pencil. Made by David Kahn, Inc. (Est. 1896).

Other famous WEAREVER stations: DeLuxe pen \$1.00, m. \$1.90; Zenith Pen \$1.95, m. \$2.75; WEAREVER Refill Leads.

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CONTINUED ON PAGE 8

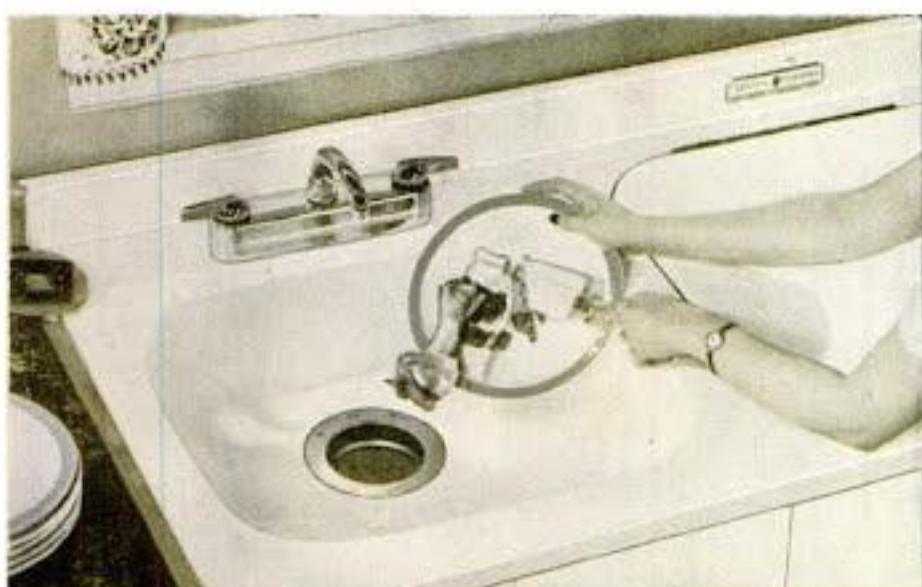
THE FRIEDLUND'S OF MINNEAPOLIS

MEET THE NEW G-E ELECTRIC SINK



Recently, Harold Friedlund, his wife, Louise, and their three daughters, visited a G-E All-Electric Kitchen. Mrs. Friedlund just *raved* about the new G-E Dishwasher. "I wouldn't have believed it if I hadn't seen it! A whole day's dishes washed and rinsed, *completely automatically*. And they dry of their own heat, all in a few minutes—cleaner than I could do them by hand!"

"The G-E Disposall got me!" said Mr. Friedlund. "It disposes of food waste *electrically*!" Just scrape food waste off the dishes and down the Disposall. Close the cover, turn on the cold water. Whoosh! Garbage problems disposed of instantly! Soon, the G-E Dishwasher and G-E Disposall may be purchased separately, or as a unit. The two together are known as the "G-E Electric Sink."



Now you see it—now you don't! Jean and Jane, six-year-old twins, are spell-bound by the G-E Disposall! Food waste—even bones—vanish in a jiffy. All shredded up and flushed neatly away, down this self-cleaning electric drain which fits into most any kitchen sink. "So sanitary!" exclaims Mrs. Friedlund.



"It's *super*!" Barbara Ann can't get over the G-E Dishwasher! "Just put the dishes in, turn the switch and forget them!" Small families will wash dishes *only once a day*. Large families, twice a day. Helps cut down on dish-breakage, saves hands. "Guess we'll start an Electric Sink Fund," says Mr. Friedlund. "We'll sure want one of these!" General Electric Co., Bridgeport, Conn.



FOR THE COMPLETE TABLE-TO-SHELF DISH JOB:
DISHWASHER AND DISPOSALL

FOR GOOD LISTENING: Don't miss Art Linkletter, in "The G-E House Party," every afternoon, Monday through Friday, 4 p.m., E.W.T., CBS. "The G-E All-Girl Orchestra," Sunday, 10 p.m., E.W.T., NBC. "The World Today," News, Monday through Friday, 6:45 p.m., E.W.T., CBS.
FOR FINAL VICTORY—BUY AND HOLD MORE WAR BONDS

GENERAL  **ELECTRIC**

oh-oh, Dry Scalp!



ATTENTION! When your hair gets that dull, lifeless look . . . when it feels dry under your fingers . . . when loose dandruff starts to appear . . . chances are that nature isn't supplying enough natural scalp oils. That means Dry Scalp. It calls for 'Vaseline' Hair Tonic.

5 drops a day
keep Dry Scalp away



AT EASE! Here's help. Five drops of 'Vaseline' Hair Tonic a day check Dry Scalp by supplementing the natural scalp oils. Your hair regains that natural, just-combed look. Your scalp feels better. For 'Vaseline' Hair Tonic works with nature—contains no alcohol or other drying ingredients. Use it also with massage before shampooing. It's double care—both scalp and hair.

Vaseline HAIR TONIC

REG. U. S. PAT. OFF.

More bottles sold today than any other hair tonic

LETTERS TO THE EDITORS

CONTINUED

rible disgrace in that. I, for one, was impressed with the way they came out on top, healthy and pretty, making good use of their common sense. Could we at their ages have done as well as they, under such stress?

MRS. RICHARD R. COLBURN
Colorado Springs, Colo.

AMERICAN SONGS

Sirs:

Aw, it just can't be! Please say you made a mistake, Mister. Surely you can't mean that the "scenes associated" with our great Western ballad *Home on the Range* are a trashy backyard, a hen house, some chickens—and a privy all closely surrounded by trees (LIFE, July 30).

To us whose actual homes may be a lean-to shack or a 20-room hacienda, the one scene we all see is the vast, thrillingly beautiful panorama of the open range country. Of course I realize that much of the cattle country is more heavily wooded than our Arizona range, but I'll bet my buckskin horse against a cross-eyed goat that you won't find antelope playing anywhere except in country open enough for them to see you coming a mile or two away, give you a disdainful flash of their white rumps and then get the hell into the next county at 40 or 50 miles an hour.

If you don't like our homes but prefer pictures of our out-buildings, a pole corral, a windmill and stock tank, or a cow at a salt lick, why, that's all right. But please, Mister, please don't tell us that when we sing *Home on the Range* we're singing about a privy and chickens.

E. M. FURREY
Tucson, Ariz.

• Nevertheless, an isolated homesteader named Brewster Higley wrote the words to *Home on the Range* in this cabin in Kansas (see below).—Ed.



"HOME ON THE RANGE"

SYMPATHETIC SUGGESTION

Sirs:

It was with a degree of sympathetic interest that I read of the hard time which veterans are having in buying civilian outfits which they want (LIFE, July 30), for I happen to have a brother who was in the very same fix. However, instead of purchasing any Tahitian bathing trunks for use as shorts, after scouting around for suitable underwear without any luck, he finally came home with several pairs of ladies' rayon panties tucked under his arm and has been wearing them ever since. What's more, he admits they're quite comfortable indeed.

I just wanted to throw out this suggestion with the hope that it might be of some help to other veterans who happen to be in the same predicament . . .

DOROTHY URNESS
Berkeley, Calif.

Even grizzled old faces like his



feel almost smooth as his



after a cool, cool Ingram shave...



• Friend, move in on this boon to man and blade, this soothing, cooling, ever-loving Ingram! Helps condition your skin for shaving, wilts wiry whiskers in seconds, cools and soothes razor scrapes and stings! And that wonderful coolness lingers on! Sample it, Son. Buy Ingram Shaving Cream today!

 **INGRAM**
SHAVING CREAM
Product of Bristol-Meyers

This arrow was *aimed* at something..



Thousands of Americans want an *economical* car. But they want, too, a car that provides extra dividends in comfort, safety, driving ease, pride of ownership and general motoring satisfaction. It has been Pontiac's aim to meet this need. That is why Pontiac motor cars have enjoyed such popularity and owner loyalty. Pontiacs will continue to be built for those who know the wisdom of paying just a few dollars more—for a great deal more car.

 **PONTIAC**



MEAT LOAF . . . baked in a ring mold! Brown $\frac{1}{2}$ c. chopped onions. Add to $1\frac{1}{2}$ lb. beef chuck, round, flank, or brisket which has been ground once with $\frac{1}{4}$ lb. pork shoulder. Add 1 c. crumbs, 1 tbsp. salt, $\frac{1}{4}$ tsp. pepper, $\frac{1}{4}$ tsp. allspice, 2 eggs, $\frac{3}{4}$ c. milk. Bake in greased 8" ring mold in a mod. oven (350° F.) about 1 hr. Unmold, fill with creamed celery, peas. Serve with peach halves and spiced grapes.

POT ROAST . . . with cucumber-tomatoes! Pot roasting or braising increases the tenderness of such cuts as chuck roast, flank steak, short ribs. Season meat; dredge with flour. Brown in hot fat, add a little water; cover. Cook slowly, on top of range or in oven, about $2\frac{1}{2}$ hours or until tender. To serve 5, you will need 2 lbs. chuck or flank steak. Fill tomato cups with seasoned cucumber cubes and chopped parsley. Serve cold or bake in same oven as meat for about 15 min.



Swift's[®] Brands of Beef

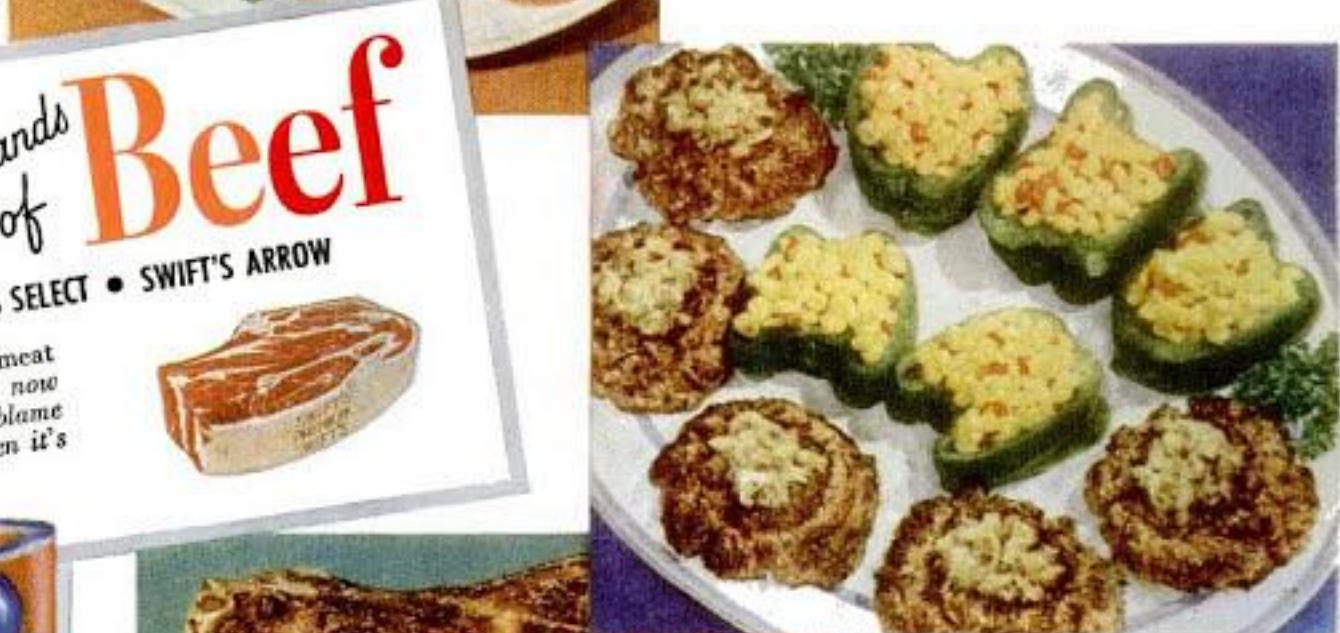
SWIFT'S PREMIUM • SWIFT'S SELECT • SWIFT'S ARROW



These brand names right on the meat identify the very finest beef. Right now your dealer rarely has it, but don't blame him—he'll be as happy as you when it's plentiful again.



REMEMBER those great roasts of Swift's Premium Beef? So tender and juicy . . . so surpassingly delicious. Are you wondering what's happened to them? . . . why *all* beef is so scarce? Here are some of the answers: more people want, and need, meat than ever before; it takes time to "grow" more beef animals; our men and women in uniform have first call on the country's meat supply . . . and we're all glad they're getting plenty.



THESE days it would be a kitchen tragedy if you failed to make the most of *any* cut of beef. For, as you well know, it's cause for rejoicing when you can find any beef at all.

So Martha Logan, Swift's chief Home Economist, gives you her basic recipes for beef cookery . . . with emphasis on the cuts which you've a better chance of finding. Fixed her way, they're "different" and mighty fine eating. Nutritious, too, for you get the same important nutrients in all cuts of beef.

It's no surprise of course that when all beef is scarce, the finest is still scarcer . . . which means there is very, very little of Swift's Beef. But when you do hit a lucky day, and your dealer has beef branded *Swift's Premium*, *Swift's Select*, or *Swift's Arrow* . . . then you are getting the best beef there is.

HAMBURGERS . . . *deluxe!* Have beef from chuck, round, flank, or brisket ground once, coarsely. The addition of 2 oz. ground beef suet per lb. of meat is recommended. With fingers, shape 1 lb. meat into 5 patties $\frac{1}{2}$ inch thick. Handle as little as possible. Brown quickly in a small amount of fat. Reduce heat and cook slowly 2 to 5 minutes, depending upon rareness desired. Season with 1 tsp. salt. Top each patty with minced fried onion. Serve with parboiled green pepper rings filled with seasoned corn and chopped pimiento.

It's better
with
fresh fruit
and
White Rock



Try this White Rock Tom Collins!

Put 1 level tablespoonful of sugar in a tall glass. Dissolve thoroughly in a little White Rock water. Add juice of 1 lemon (or 2 small limes) and stir. Add cracked ice (or ice cubes) then 1½ jiggers of gin—2 oz. plus. Fill glass with White Rock Sparkling Mineral Water—the tangy mixer that improves flavor. Stir slightly, and drink. Um-m-m!

LIFE

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LIFE'S COVER

General Carl A. Spaatz is first military leader to wield the new weapon of atomic energy. Head of U.S. Strategic Air Forces in Europe, he had become head of Pacific Strategic Air Forces a month before his planes dropped the first atomic bombs. "It won't be pleasant for the Japs to absorb," said "Toosey" Spaatz, thus qualifying as a sound but cautious prophet. For other fighting men who prepared Japan for the end, see pp. 12 to 14.

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ALSO OTHER FLAVORS



Pure CANE Sugar plus
Natural MINT for Flavor

No Artificial Flavoring

Ruehardson's Quality Remains the Finest
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advises even his adorable
Child Powers Models
to use *only* this shampoo!



Certainly You'll Want This
Remarkably Beautifying Shampoo
For Your Child's Hair

Mother! those darling little *child Powers Models* whose pictures you see in magazines are also advised by Mr. Powers to use *only* Kreml Shampoo to wash their hair.

And there are very good reasons why Mr. Powers *always* recommends Kreml Shampoo—and why you should buy Kreml Shampoo for your *child's* hair.

Beneficial Oil Base Helps Keep
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Kreml Shampoo thoroughly cleanses scalp and hair of dirt and loose dandruff. It leaves hair so much softer, silkier—easier to comb—just gleaming with *natural* sparkling beauty.

Kreml Shampoo never leaves any excess dull soapy film. It positively contains no harsh caustics or chemicals. Instead it has a beneficial *oil* base which makes it so excellent for shampooing children's hair—which helps keep hair from becoming dry or brittle.

Why not take a tip from the gorgeous 'grown-up' Powers Models and glamour-bathe *your* hair with Kreml Shampoo? Buy a bottle *today* at any drug, department or 10¢ store.

Buy The Large Size—Let Your Whole Family Enjoy Its Benefits

Kreml SHAMPOO

FOR SILKEN-SHEEN HAIR—EASIER TO ARRANGE
MADE BY THE MAKERS OF THE FAMOUS KREML HAIR TONIC



What Kreml
Shampoo Does
For Powers
Models' Hair



Brings out natural
sparkling beauty and
lustre



Helps keep hair from
becoming dry or
brittle



Leaves hair with
silken sheen that
lasts for days

NAVY



Chester Nimitz, admiral of the fleet, is top Navy boss in Pacific.



John Hoover, vice admiral, succeeded Towers as Nimitz' deputy.



Forrest Sherman, rear admiral, is chief of staff to Admiral Nimitz.



William F. Halsey, admiral, led Third Fleet in last attacks on Japs.



Alexander Vandegrift, general, led at Guadalcanal, is Marine boss.



Raymond A. Spruance, admiral, commanded the U.S. Fifth Fleet.



Thomas Kinkaid, vice admiral, led Seventh Fleet at Philippines.



John S. McCain, vice admiral, led Task Force 38 for past 13 months.



Marc Mitscher, vice admiral, led the hard-hitting Task Force 58.



Roy S. Geiger, lieut. general, is the boss of all the Marines in Pacific.



John H. Towers, vice admiral, was Nimitz' deputy for most of war.



Richmond K. Turner, admiral, led amphibious forces in the Pacific.



Fred Sherman, vice admiral, led task force in major carrier attacks.



Daniel Barbey, vice admiral, commands the 7th Amphibious Force.



Lemuel Shepherd, major general, commanded 6th Marine Division.



Charles Lockwood, vice admiral, bosses all the Pacific submarines.



Theodore Wilkinson, vice admiral, led one of the Leyte landings.



Harry Hill, vice admiral, led landings at Tarawa, Eniwetok, Tinian.



William W. Smith, vice admiral, is the service officer for the Pacific.



Holland Smith, lieut. general, was an early Marine boss in Pacific.

SPEAKING OF PICTURES .

. . . THESE ARE SOME LEADERS OF THE PACIFIC WAR

The men shown on these pages have just finished the biggest job of their lives. To them and some others not shown here goes credit for leading the way to victory in the Pacific. These officers represent 166 general's stars and over 8 feet of admiral's gold braid. They range in age from the 38 years of LeMay to the 65 years of MacArthur.

These men have fought all the way across the Pacific Ocean, in huge naval battles, on bloody islands and in the last big air raids over the Japanese home-

land. Some of them, like Nimitz and MacArthur, have been fighting in the Pacific ever since the beginning of the war. Others, like Spaatz and Doolittle, helped finish the war in Europe before going to the Pacific. Some, like Richardson and Styer, had to fight the war from map-hung offices far behind the lines. Others, like Stilwell and Halsey, directed the battle from a foxhole or the bridge of an aircraft carrier under *kamikaze* attack. Some of the men shown on these pages have still another tough job ahead: occupying the homeland of Japan.

ARMY



Douglas MacArthur, general of the Army, is Pacific Army boss.



Joseph W. Stilwell, general, was CBI boss, now leads Tenth Army.



Albert Wedemeyer, lieut. general, is boss of Army in China Theater.



Walter Krueger, general, helped to reconquer Philippine Islands.



Robert Eichelberger, lieut. general, led Eighth Army in Philippines.



Raymond Wheeler, lieut. general, became India-Burma boss in 1945.



Carl Spaatz, general, went from ETO to lead the Pacific air forces.



Curtis E. LeMay, major general, is the chief of staff to Spaatz.



Innis P. Swift, major general, commanded I Corps of Sixth Army.



Charles Hall, lieut. general, led the XI Corps in the Philippines.



Oscar Griswold, lieut. general, led the XIV Corps, freed Manila.



Claire Chennault, major general, led 14th Air Force, has just quit.



George C. Kenney, general, sold MacArthur on Pacific airpower.



John R. Hedge, lieut. general, was one of the first ashore at Okinawa.



Franklin Sibert, major general, led the X Corps in the Philippines.



Richard Sutherland, lieut. general, is MacArthur's chief of staff.



George Stratemeyer, major general, is the air commander in CBI.



Charles Stone, major general, is new leader of the 14th Air Force.



Robert Richardson, lieut. general, bosses Middle Pacific Command.



Wilhelm Styer, lieut. general, has post of MacArthur's supply chief.



Archibald Arnold, major general, led the 7th Division on Okinawa.



Ennis Whitehead, lieut. general, is commander of 5th Air Force.



Paul Wurtsmith, major general, is in command of the 13th Air Force.

How to Sweeten a Sourpuss— try it and see!



6 A.M. Outing plans look dubious on account of his nibs feels awful. Headache. Constipation symptoms. It looks

like he needs a laxative. Well, then—fix him a sparkling glassful of brisk, refreshing Sal Hepatica—this very minute.



8 A.M. On the open road, headin' for a swell day! Thank goodness for Sal Hepatica! Taken first thing in the morning it usually acts within an hour—bringing quick, ever-so-easy relief. Sal Hepatica helps counteract excess

gastric acidity, too—and helps turn a sour stomach sweet again.

Gentle, speedy Sal Hepatica is recommended by 3 out of 5 doctors interviewed in a survey. Next time you need a laxative, why don't you try it?

ASK YOUR DOCTOR about the efficacy of this famous prescription: Sal Hepatica's active ingredients: sodium sulphate, sodium chloride, sodium phosphate, lithium carbonate, sodium bicarbonate, tartaric acid. Get a bottle of Sal Hepatica today, remembering this: caution—use only as directed.

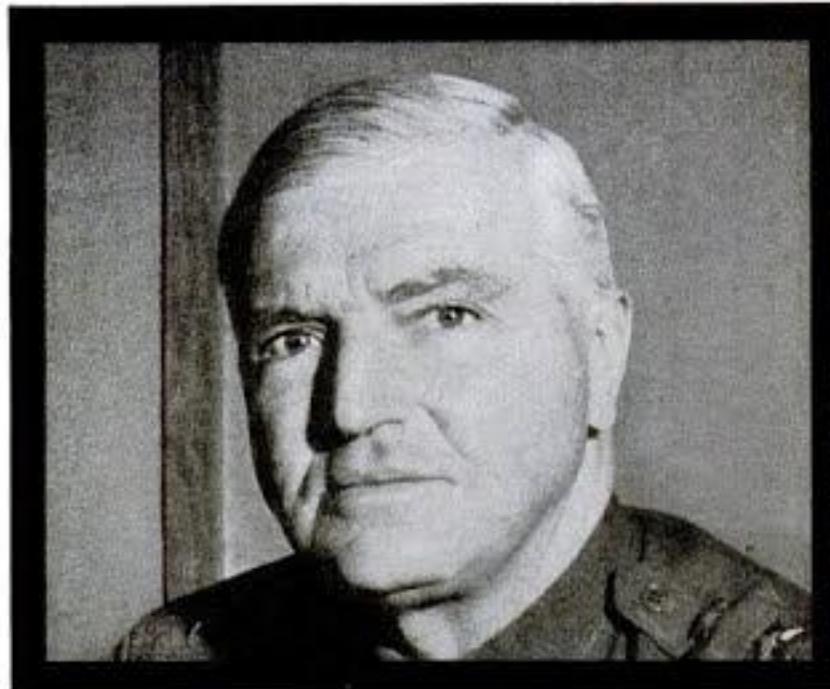
Whenever you need a laxative
—take gentle, speedy
SAL HEPATICA

TUNE IN { "WEDNESDAY WITH YOU"—Wednesdays, NBC, 9:00 P.M., E.W.T.
"THE ALAN YOUNG SHOW"—Tuesdays, Blue Network, 8:30 P.M., E.W.T.

SPEAKING OF PICTURES

CONTINUED

THESE GAVE THEIR LIVES



Simon Bolivar Buckner Jr., lieut. general, led the Tenth Army on Okinawa. With the battle almost over, he was killed by Jap shell while making an inspection tour.



Millard Fillmore Harmon, lieut. general, commanded Strategic Air Forces in the Pacific. Early this year he went on a routine flight from which he never returned.



Daniel Judson Callaghan, a rear admiral, was naval aide to President Roosevelt for three years, commanded U. S. S. *San Francisco* when killed in Solomons action.



Can you offer a ride in America's *safest* car?

Chances are, you're doing your wartime share of "car pooling." That means you often have the lives of others in your care.

Your passengers know that your car has all the safety features the manufacturer could give it. Four-wheel brakes . . . all-steel body . . . and shatter-proof glass.

And yet . . . if they thought twice about it, they might hesitate to ride with you.

For a blowout may easily bring serious injury or death—unless you are protected with LifeGuards, Goodyear's modern successor to the inner tube.

Provided it has been kept in good shape, your car becomes America's safest—once you install LifeGuards. This year, like most car owners, you're probably riding on tires that are well over the peacetime, safe-riding age limit. The treads may be dangerously thin—the sidewalls tired and weary.

So, even if you've never had a blowout, watch

out for your first one in 1945!

More than anything else, a careful man wants peace of mind—the assurance that, even if one of his tires does blow out, his car won't go skidding and swaying across the road. With LifeGuards in your tires, this need never happen to you.

In sizes available, LifeGuards can be used in any make of tire, new or now in service. No ration certificate is required.

Until production can be increased, your Goodyear dealer may not have your size in stock. But we hope conditions will permit us to increase production soon.



LIFEGUARDS

make a blowout harmless



1 Tire without LifeGuard blows out, goes flat. Wheel drops suddenly—throws car out of control.

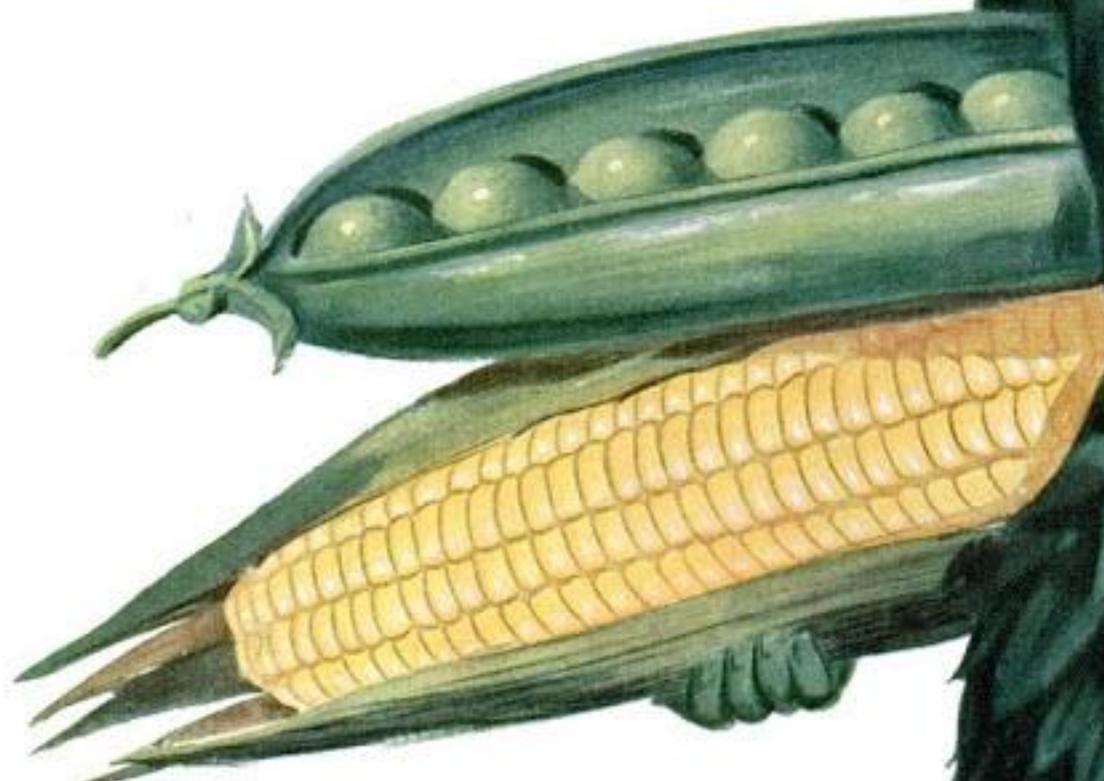


2 Tire with LifeGuard blows out. LifeGuard lets air out gradually—tire deflates very slowly.



3 LifeGuard gives you ample time to bring your car to a safe, gradual, straight-line stop.

THE BIG CORN AND PEA MAN



He's only a few inches tall on the labels of Niblets Brand whole kernel Corn and Green Giant Brand peas, but he's a lot bigger than that in the minds and hearts of our countrymen who know good food when they eat it.

He grows his products from exclusive seeds: D-138 for Niblets Brand whole kernel corn; S-537 for Green Giant Brand peas. Both are packed *at the fleeting moment of perfect flavor.*

Yes, ma'am, a good man in your pantry!

GREEN GIANT PEAS

BRAND

NIBLETS

BRAND WHOLE KERNEL CORN

Packed only by Minnesota Valley Canning Company, headquarters, Le Sueur, Minnesota; and Fine Foods of Canada, Ltd., Tecumseh, Ont. Also packers of the following brands: Niblets Mexicorn (whole kernel corn with sweet red and green peppers), Del Maiz Cream Style Corn and Niblets Asparagus.



"GREEN GIANT" AND "NIBLETS" BRANDS REG. U. S. PAT. OFF.

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LIFE'S REPORTS

THE ATOM BOMB AND FUTURE WAR

There may be devastating "push-button" battles

by HANSON W. BALDWIN

To military men the atom bomb threatened a complete revolution in the methods of making war. It could become an offensive weapon so effective that ground, sea and air forces might be relegated to secondary roles. Here a sober military analyst, Hanson W. Baldwin, tells what the coming wars could be like and how the U.S. must prepare for them.

In a fraction of a second on Aug. 5, 1945 American scientists not only destroyed Hiroshima, Japan, but with it many human concepts—chief among them our ideas of how to wage war. We are opening today a fresh page in military history and our first scribblings on it will be cramped and difficult, for what is to come far transcends all man's experience of what has gone before.

It would be completely impossible and futile, therefore, to try at this time to digest the meaning of man's harnessing of atomic energy to war or to predict its consequences. It is far too early and our knowledge is yet too small. Only tentative conclusions and incomplete speculations can serve as some yardstick to what must become a new brand of military thinking—thinking geared fundamentally to the laboratory and the factory rather than to terrain contours and grid maps.

Major General J. F. C. Fuller, the British military historian, has written of the First World War, "God now marched with the biggest industries rather than with the biggest battalions." This remark is even more fundamentally true of the Second World War than of the First. Our victories have been based on material superiority, upon mass production. Tomorrow the big factories, but with the big laboratories beside them, will dominate war and will make it—in its most virulent form, at least—the business of the big and wealthy nations, not of the small and the weak. The two A1 priorities in our postwar national defense program must be: superiority in research and development (something we have not always enjoyed by any means in this war, despite our "first" with the atomic bomb) and continued superiority in mass production—in other words a coupling of quality with quantity—never an easy mating.

Atomic energy explosives, revolutionary though they are in concept and effect, cannot be considered alone. There have been many other revolutionary weapons and techniques in this war—rockets, for instance—and it is only when they are considered together that the impact of the technological revolution in warfare is fully apparent.

Well before the development of the atomic bomb and the rocket, it was clear that the pendulum which in all past history has swung between offense and defense was in this war heavily weighted toward the offense. Man always has sought in his weapons for the ultimate in range and in destructive power. If he could hit the enemy first and hit more of him, he won the battle. The javelin, the arrow, the catapult, the cannon and now the plane have been man's successive solutions of this problem. The plane gave man great range, gave him the ability to leap over terrain barriers and seas, to pass above the struggling surface forces and to strike directly the enemy's cities, industries, communications and will to resist. But the plane was a vulnerable and expensive instrument. Tremendous destructive power could be obtained only by the use of tremendous numbers, and heavy bombers, with all their appurtenances are among the most expensive and complicated instruments of war ever invented. Moreover, they could be intercepted and shot down.

But the coupling of atomic energy explosives (destructive power) with rocket propulsion (range) provides the world potentially with the most terrible weapon ever known. The V-2 stratosphere rocket,

Rely on
Reliance

From
One **BIG YANK**
To Another



In this picture you see two "Big Yanks"

... A happy Yank, back home for keeps

... America's favorite Big Yank work clothes

... Both are the world's best!

Millions of Yanks throughout the world now know Reliance quality. For the name "Reliance Mfg. Co." is on so much equipment furnished them by Uncle Sam—on more than fifty-two million essential items. This huge number of shirts, trousers, parachutes, shorts, hammocks, Navy whites, camouflage suits, field jackets, and other articles has been made with the care and precision that has won Reliance three Army-Navy "E" Awards. Servicemen are certain they can "Rely on Reliance." That is one more reason why returning Yanks insist on Reliance-made Big Yank shirts and pants.

Reliance is still largely engaged in war production, so there are not nearly enough Big Yanks to go around. But more are coming. It will pay you to keep asking your dealer for Reliance Big Yank shirts and pants.

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Reliance
BIG YANK

Hallelujah! Here's a SHAVING CREAM Guaranteed not to make shaving a pleasure!

If you're old enough
to shave your face—
you're old enough
to face the facts!

Let's not beat around the bush—or the brush. Years of experiment have probably convinced you that shaving is a chore and a bore—and most likely always will be.

And you're plumb right! Nobody knows any better than we do how utterly impossible it is to make shaving *fun*.

We know it so well because we've spent such a long time perfecting a shaving cream that would simply help you shave with *satisfaction*. And that's *all* Listerine Shaving Cream will give you. *Satisfaction*. It *won't* help you get a raise. It *won't* help you win the blonde next door.

Just squeeze a fraction of an inch of Listerine Shaving Cream on your brush... wet your brush and face well... and then watch 'er billow! Yessir, *this* shaving cream holds water like a thunder-



head holds rain—and don't forget, it's *water* that does most of the whisker-softening.

If you're tired of searching for shaving-ecstasy, and will settle for shaving-satisfaction, you're the boy for us! You can get your tube of Listerine Shaving Cream at any drug counter. The price is low, the tube lasts long; so it is just as smartless to buy as it is to use.

Sincerely,

LAMBERT PHARMACAL COMPANY
St. Louis, Mo.



TUBE LASTS AND L-A-S-T-S

REMEMBER, THERE ARE 2 TYPES
OF LISTERINE SHAVING CREAM

Listerine Brushless is

25¢



LIFE'S REPORTS CONTINUED

as used by the Germans looped sixty to seventy miles into the skies, moving at a speed of thousands of miles an hour, and could not be intercepted by any means now known. These rockets were inaccurate and their range was limited, but science has it in its power to correct inaccuracy and increase range to transoceanic distances. In the foreseeable future science does not appear to have it in its power to stop the rocket, once launched. This suggests the ultimate triumph of the offense over the defense—"ultimate," that is, insofar as one can foresee the future. If rockets, whether propelled by chemicals or by atomic energy engines, can span the Atlantic and if their atomic warheads can destroy cities at one breath and if man can do nothing to prevent this, man has unleashed a Frankenstein monster.

This thought can be carried to what may seem fanciful extremes, but who dares use that adjective after Aug. 5, 1945?

Rockets and atomic bombs may reverse social and economic urbanization processes of past centuries, for cities (area targets) could not live (even conventional bombs have demonstrated this) under a hail of atomic charges unless built deep underground or decentralized. Serious attention must be paid in the postwar period to dispersion of our industries and to new ideas for city planning.

An army of moles

Where does any such "push-button" war as this leave the military man? Is there need in this fantastic world of tomorrow for piloted planes, ground armies, surface navies?

General of the Army H. H. Arnold has predicted that this is the last war of the pilots. The inference is obvious. Robot planes, rockets, television and radar bombing and atomic bombs will do the work today done by fleets of thousands of piloted bombers.

This may well be. Indeed it seems likely that the bulk of area bombing may be done in the future by robots controlled or directed from the ground. But this will not replace the piloted plane for specialized tasks—pin-point visual bombing of rocket-launching sites, photo and visual reconnaissance, airborne operations. The pilot will still have a place in the world of tomorrow for the very simple reason that man has not yet invented a machine endowed with all the brains of man.

Partly for the same reason, partly because of the inherent limitations of bombardment in any form—even in this terrific combination of rocket and atomic warfare—there will be, as far as we can see now, use for ground armies. This use will probably be more limited and specialized than exists today. The plane, the robot, the rocket, long-range artillery and the atomic bomb can destroy and devastate, kill and maim, but cannot occupy, hold and organize the earth on which men live and from which they have their being. Men on the ground must do this; hence, even if those men are transported by air as airborne armies, some sort of an occupying and organizing ground force will be needed. Perhaps it will have to be an army of moles, specially trained in underground fighting, for man may well burrow into the earth, as the Japs have done in this war, to escape insofar as it is possible the terrible effects of the atomic bomb. Certainly it will have to be an army trained in wide dispersion rather than in close concentration and possessing tremendous mobility, an army whose principal transport may be aircraft.

Our military strategy must change

Oceanic shipping, too, probably will be needed, as long as our world is organized on a basis of cost accounting and as long as ships can carry bulk cargo (such as wheat and manganese) more cheaply than aircraft. As long as merchant shipping plies the seas, there will be need for the military man at sea in surface and sky warships to protect the vessels of trade. But like ground armies, surface navies will have a much more limited role.

It may, of course, be true tomorrow as it has been in all ages past that we shall find an answer—a defense to the atomic bomb and the long-range rocket. The history of man shows that throughout past ages to every weapon there has been some answer, to every answer there has been a new weapon and so the frightful cycle went. Men have died in countless wars and civilizations have perished, but man, a persistent creature, goes on and civilization endures.

But for the foreseeable future, at least, the offensive appears to have a marked advantage over the defensive and war will probably be a direct rather than an indirect test of the strength of will of the opposing nations. Inasmuch as laboratories and factories will hold the key to victory, they will also be the primary targets for destruction. Victory is more likely to be decided not by a conventional sur-

CONTINUED ON PAGE 29

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*"Just in Time—
I woke up!"*



"There I was—about to make two awful mistakes!

"Why, I dreamed, I was actually going to cash in a War Bond. When everybody knows the thing to do is hang on to 'em—let 'em keep helping the war till it's over once and for all!

"And what was I going to do with the money? Buy sheets I didn't *need*, no less! Something I'd never *think* of, in my conscious moments!

"All that—because I went to sleep snuggling into my soft, smooth Cannon Percale Sheets... patting myself on the back for owning 'em... planning how many more I'd need for my dream linen closet, postwar!

"Postwar is plenty of time—for gals like me, who are lucky to own Cannon Percale Sheets already. And do those Cannon beauties do you proud from the day you buy 'em!"



I say "smo-o-ooth!" Real dreamtime bliss—to slip in between soft, fine, snowy Cannon Percale Sheets! (Each sheet conveniently tagged with bed size.)



Husband says: "Smart girl!" Cannon Percale Sheets give you up-in-the-clouds luxury—for down-to-earth prices!



Laundryman says "Here's change!" You save money—because percale's *lighter*! Cannon Percale Sheets save about \$3.25 per bed, per year at average pound laundry rates. (Easier to do up at home, too.) And they're woven with 25% more threads than the best-grade muslins!



Father Time says "Nice going!" Yes—Cannon Percales are grand for wear—and does that *count*, these days!



Wartime necessity may say: If you can't find your size in Cannon Percales, see Cannon Muslin Sheets—well-made, long-wearing, a real value!

P. S. Really need towels? See Cannon's.



Cannon Percale Sheets

Made by the Makers of Cannon Towels and Hosiery ★ Cannon Mills, Inc., New York 13, N. Y. ★ FOR VICTORY, BUY U. S. WAR BONDS AND STAMPS



CHIROPPODIST FIND ATHLETE'S FOOT IS "EPIDEMIC" DISEASE, THREAT TO EVERYONE

STUDY OF 40,000 PERSONS REVEALS NEW SUCCESS OVER ATHLETE'S FOOT!



Amazing results of Quinsana treatment

74% infected before Quinsana treatment

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ATHLETE'S FOOT DISAPPEARED among practically all persons using Quinsana powder—in records of thousands of cases. In an important new study of 40,000 persons, the scientist in charge states, "Quinsana was found to be a highly effective aid in controlling Athlete's Foot!"



MOST CHIROPPODIST (FOOT SPECIALISTS) RECOMMEND QUINSANA for Athlete's Foot. Use Quinsana daily 2 ways: (1) on feet and (2) in shoes, (absorbs moisture, reduces chances of re-infection from shoe linings). Being a soothing powder, Quinsana is easy to use—for prevention as well as relief. Used by all branches of the armed forces today. Excellent for the whole family. To help keep your feet healthy be sure to use Quinsana powder daily... see a Chiropodist regularly. THE MENNEN COMPANY, Newark, N. J.



CHECK YOUR FEET for these symptoms:

- Peeling & cracks between toes
- Soft, soggy skin
- Itching

YOU PROBABLY HAVE ATHLETE'S FOOT or will get it unless you guard against the disease. 7 out of 10 adults are infected yearly, and warm weather increases the danger! Even mild case may suddenly become serious. Now millions are using Mennen Quinsana with excellent results!



50¢
Slightly higher
in Canada

LIFE'S REPORTS CONTINUED

face or aerial clash of arms but by "push-button" war. "Push-button" war, using missiles of tremendous range and terrible destructive power, seems slated for the primary role. Surface forces and piloted air fleets seem relegated not to the limbo of the past but to supporting and secondary roles.

With such basic changes must come violent changes in tactics and supporting weapons, in equipment and training and, above all, in strategic conceptions. Mountains, rivers and terrain barriers no longer have their ancient meanings; the strategic position of the British Isles is less secure than ever before in history. The world is smaller; outlying island bases now have far less importance, and even the U. S., behind its oceans, has in one sense become an insular, rather than a continental power, a power now "neighbor" to the great land mass of Eurasia.

These, of course, are tentative conclusions, reachings into the unknown to try to plumb an unknowable future. They may be emphatically mistaken. But from what we know of recent technological developments they appear to be conservative, not radical, conclusions.

We must prepare for defense

The atomic bomb has wrench us violently from the moorings of the military past. It appears to have invalidated, technologically, the concept of peacetime conscription and mass armies, of giant warships and tremendous bombers. It underscores and re-emphasizes the primary need for research, particularly research to control and defend against atomic energy and long-range rockets.

Even before Hiroshima there was major need for a comprehensive, all-embracing, judicial and nonpartisan study of our postwar military problems and the requirements of national defense, as tied to foreign policy. Today that need is imperative, or the future extraordinary needs of our defense may be judged by partisan and conventional minds. A commission of the nation's leading citizens should be appointed at once by the President and Congress to study the technological revolution in warfare.

It would be a happy day if such a commission concluded and could persuade its fellow men that this is One World and that man must establish a common brotherhood or die in droves beneath the atomic bombs.

"You're certainly swinging a mean racket these days, Mary!"



"I'm always feeling fit for fun, now that I've gotten rid of that logy feeling, and ordinary constipation... with NUJOL!"



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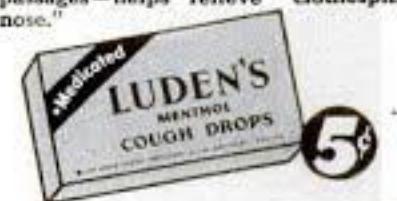
IT'S YOUR DUTY TO KEEP FIT...
AND TO KEEP BUYING WAR BONDS



here's help for your

CLOTHESPIN NOSE

Stuffy-head season is here! Get help! As a Luden's melts in your mouth it releases penetrating menthol which your breath carries to clogged-up nasal passages—helps relieve "clothespin nose."



NEW LUDEN'S HONEY-LICORICE COUGH DROPS!

Here's a new flavor in cough relief by the makers of Luden's Menthol Cough Drops. Both are medicated. Both 5¢.



AN OLD FRIEND OF THE FAMILY... *going out of the picture!*

GOOD-BYE, old friend! You'll be missed . . . it may be a long, long time before this family gets another car like you!

This is the sad story of one more car gone out of the picture . . . just one of the more than 1,000,000 cars leaving the road this year . . . *worn out*. Killed by wear and tear . . . and lack of proper attention.

Keep your car alive. Take it to a Texaco Dealer today. Get a complete check-up . . . including lubrication of wear-and-tear points with MARFAK, the tough, long-lasting chassis lubricant.

It's time to change oil to the correct seasonal grade of HAVOLINE MOTOR OIL or TEXACO MOTOR OIL, both *insulated* against heat *and* cold. Gears need lubrication . . . tires, battery, cooling system need attention.

If you wait, it may be too late. See your Texaco Dealer today!

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A GREAT POSTWAR LINE-UP



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REST ROOMS



ALL NIGHT SERVICE
FROM COAST-TO-COAST



FIRE-CHIEF
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SKY CHIEF
GASOLINE



HAVOLINE AND TEXACO
MOTOR OILS



MARFAK
LUBRICATION



THE TEXAS COMPANY



Merle Oberon, starring in Walter Wanger's Technicolor production "Night in Paradise."

**"Waiting
can seem shorter..."** says *Merle Oberon*

"To me, 'some day' always seems to come sooner when I'm making definite plans. So why not keep an idea file on your dream home? Decide on furniture arrangements, colors. By all means choose the silverware you love most."

MAYBE YOU already have a picture of *your* "some day" on paper, as well as in your heart.

If you haven't, choosing one of 1847 Rogers Bros.' beautiful patterns is a wonderful way to begin.

If you love fine, feminine things, you'll certainly be intrigued with "First Love," shown here. Isn't it slender and graceful? And note the sterling-like effect of *higher, deeper* ornamentation.

This and the other matchless 1847 Rogers Bros. designs will be made again, just as soon as war demands permit.

And remember, every lovely one of them reflects the superior artistry that has been handed down through almost a century of 1847 Rogers Bros. craftsmanship!

Wait for your favorite. You'll always be ever so glad you did!
International Silver Company, Meriden, Conn.

1847 ROGERS BROS.

*America's
Finest
Silverplate*



First Love

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LIFE'S PICTURES

Nina Leen, who photographed the house-fixing party (pp. 118-121), has two deep and lasting interests: photography and getting sun-tanned. Photography is the earlier of her pursuits and she followed it in Russia, where she was born, in Germany and in the U. S. Her sun worshiping, while more recent, receives just as much attention. She is now on what she calls "the perfect assignment": a picture story for LIFE in California, where, she has heard, the sun shines all the time.

The following list, page by page, shows the source from which each picture in this issue was gathered. Where a single page is indebted to several sources, credit is recorded picture by picture (*left to right, top to bottom*) and line by line (*lines separated by dashes*) unless otherwise specified.

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3—WILLIAM C. SHROUT

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FLEET, ACME, OFFICIAL U. S. NAVY

PHOTO-PACIFIC FLEET, J. R. EYERMAN,

U. S. MARINE CORPS FROM ACME—

OFFICIAL U. S. NAVY PHOTOS (2).

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—L. JOHNNY FLORIA, CEN. H. U. S.

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14—HORACE BOSTON—USAAF PHOTO-PACIFIC

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23—JERRY COOKS

25—Drawing by E. G. LEYDENFROST

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33—OFFICIAL U. S. NAVY PHOTO

34—GEORGE SKARLING—MARIE HANSEN

35—GEORGE SKARLING

36, 37—U. S. SIGNAL CORPS PHOTOS

38—INT.—A. P.

38A—ACME—U. S. SIGNAL CORPS RADIO

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38B—OFFICIAL U. S. NAVY PHOTO

38C—G. ORGE KIRK

38D—INT.

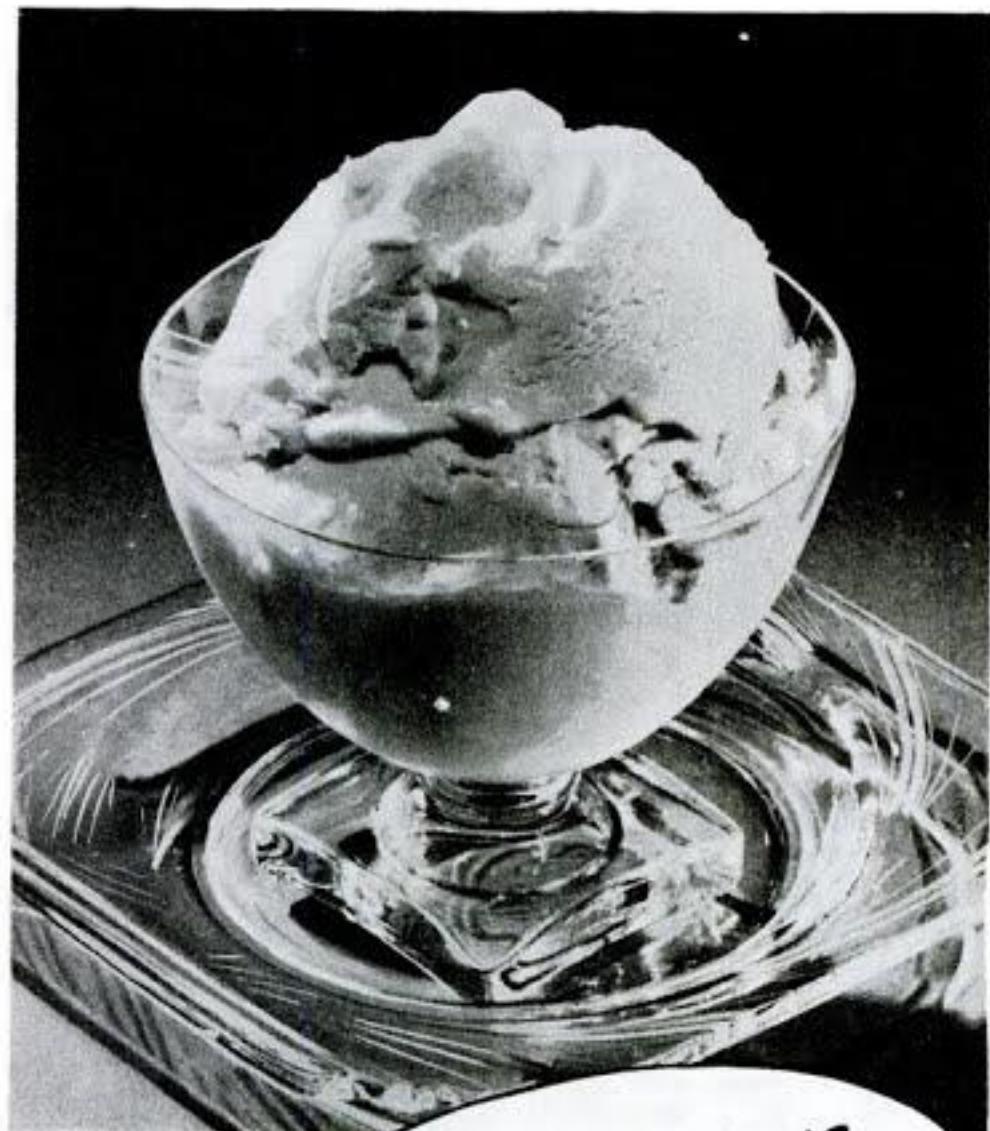
41, 42, 43—JACK WILKES

47—20TH CENTURY-FOX — RALPH CHANEY

JOHN H. S.

VELVETY ICE CREAM

Made with no extra sugar!



**EAGLE BRAND IS
THE SECRET OF THIS
MAGIC RECIPE!**

QUICK!
EASY!
EXTRA CREAMY!

VANILLA ICE CREAM

(Automatic Refrigerator Method)

1/2 cup Eagle Brand
1/2 cup water
1 1/2 teaspoons vanilla
1 cup chilled light cream
or evaporated milk

Set refrigerator control at coldest point. Mix Eagle Brand Sweetened Condensed Milk, water, and vanilla. Chill. Add cream or evaporated milk. Mix well. Freeze rapidly in freezing unit of refrigerator until half frozen. Scrape from freezing tray into chilled bowl. Beat until smooth but not melted. Replace in freezing unit. Before mixture is completely frozen, beat again until smooth. Finish freezing. Serves 5.



GET THE ORIGINAL Sweetened Condensed Milk, Borden's EAGLE BRAND. Then you're sure of Borden's high quality! EAGLE BRAND is a big time-saver; the blending of fresh, whole milk and sugar is done for you! Foolproof recipes for wonderful ice creams, candies, cookies, in the Book of Magic Recipes. FREE! Send post card to Borden's, 350 Madison Ave., Dept. L-845, New York 17, N. Y.

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HOW WELL WILL YOU EAT THIS WINTER?



57

A grand, old American custom, home pickling takes on new importance in wartime, since no pressure cooker is needed and comparatively small amounts of sweetening. Corn syrup or honey may be substituted for part of the sugar, but now, as in the past, there's no substitute for Heinz Distilled White Pickling Vinegar! Favorite

for generations, this sparkling, aromatic, full-grain vinegar keeps every precious morsel firm and tangy, temptingly fresh in color, rich in zest. And long aging in wood makes Heinz White Vinegar so mellow it blends perfectly with all the other ingredients in your favorite pickle and relish recipes.



Safeguard the garden-goodness of vegetables and fruit. Make delicious, long-keeping pickles, relishes, piccalilli, and chow chow with Heinz Distilled White Vinegar. It's the same vinegar employed by H. J. Heinz Co. in their own 57 Varieties. For convenience and economy, get the gallon jug at your grocer's.



A gardener's pride and joy! . . . To avoid failure and disappointment with pickling, only fine, fresh and unblemished vegetables and fruits should be used, and only the most reliable strength-tested vinegar (Heinz — of course!)

American civilian diets will be adequate for health and comfort this winter. But poultry, cheese, fats, perishable and luxury foods and many meats will continue short. How much variety can be assured for the family table depends upon the housewife. U. S. Government urges full use—pickling and canning—of valuable Victory Garden produce.



Even a career girl can brighten winter meals by preparing a few jars of corn or pepper relish in her kitchenette. Secrets of success for the inexperienced: (a) A good, reliable recipe, (b) Heinz Distilled White Vinegar—specially designed to bring "good luck".



Hints to Victory gardeners . . . save mess and clogged pipes by hosing beets and carrots outdoors. When pickling always make it a point to use Heinz White Vinegar. It makes a world of difference in flavor as well as keeping qualities for its strength is always uniform.



© Leydenfrost

THIS DRAWING SHOWS MORE GRAPHICALLY THAN AERIAL PHOTOGRAPHS (PP. 26-27) EFFECT OF ATOMIC BOMB HIT ON HIROSHIMA. SMOKE BILLOWS 40,000 FEET

WAR'S ENDING

ATOMIC BOMB AND SOVIET ENTRY BRING JAP SURRENDER OFFER

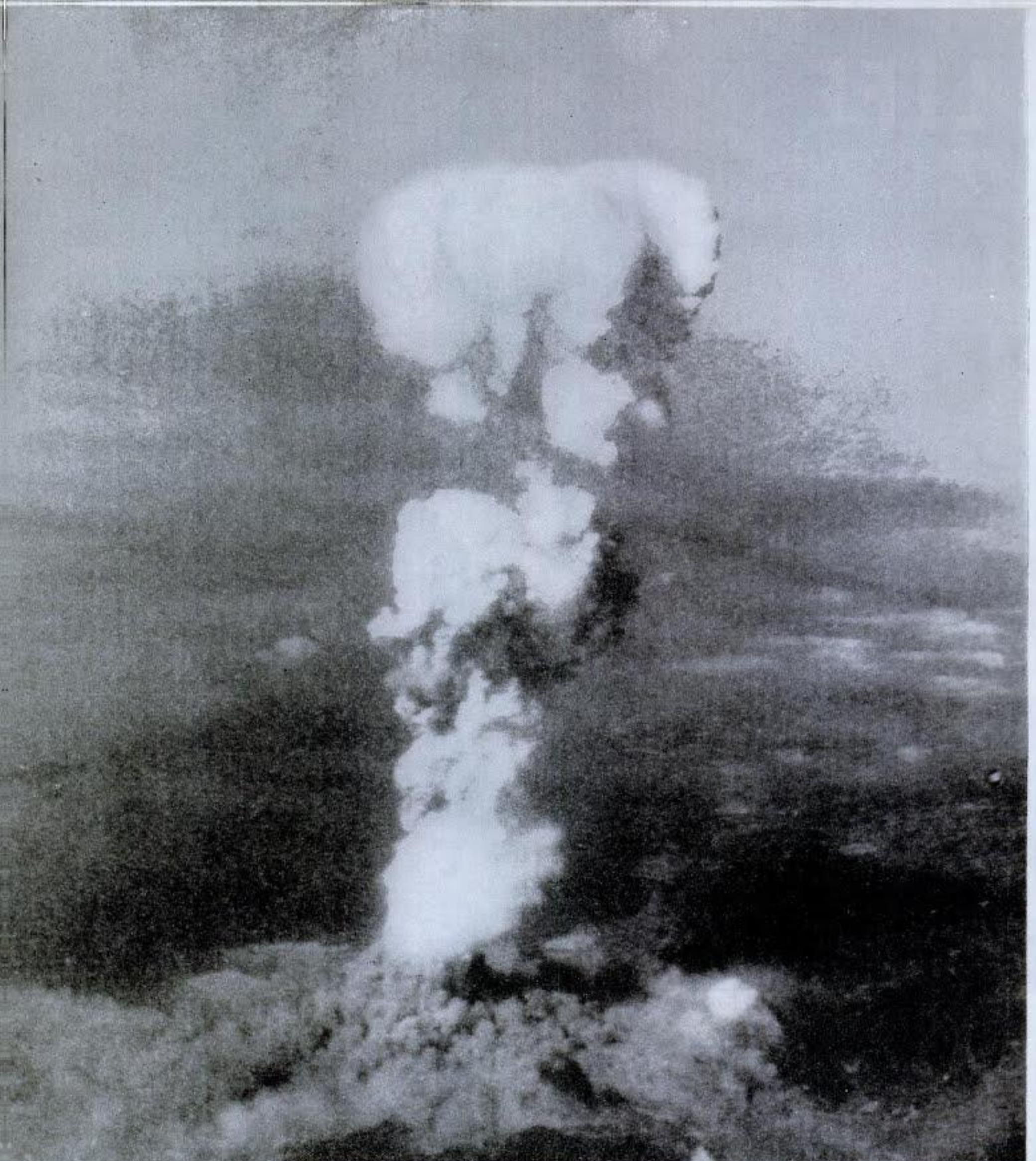
The war against Japan was finally coming to an end last week. On Aug. 5 the first atomic bomb was let loose on Hiroshima (see pp. 30-31). On Aug. 8 Russia declared war on and attacked Japan. Same day, the second atomic bomb fell, this one on Nagasaki.

On Friday, Aug. 10, the Tokyo radio broadcast an appeal for peace. Even before the official note had reached Washington through neutral channels, President Truman summoned his top military advisers to discuss the offer. The Japs, who in mid-July had

mainly asked the Russians to mediate the Pacific war, now agreed to the Potsdam ultimatum, with one condition. They wanted Emperor Hirohito (see p. 38D) to retain his sovereignty and "prerogatives." A day of wild speculation and mild celebration followed while the President communicated by phone with Chungking, Moscow and London. The U. S., which had taken the lead in the negotiations, answered for all the Big Four. On Saturday morning Aug. 11 Secretary of State Byrnes sent a note to Tokyo accept-

ing the Jap offer with the stipulation that the Supreme Allied Military Commander, presumably General of the Army Douglas MacArthur, rule Japan through the authority of the Emperor.

The people of the world, although thrilled by the prospect of peace, were shaken by the new weapon (see p. 87B), which had brought it about. Even General Carl Spaatz, whose airmen dropped the bombs, said hopefully, "Wouldn't it be an odd thing if these were the only two atomic bombs ever dropped?"



HIROSHIMA ATOM BOMB NO. 1 OBLITERATED IT

A B-29, laden with a new weapon of terrible but virtually untried destructive power, circled in the morning air over Japan's isle of Honshu from the Inland Sea. Shortly before, its crew, headed by Colonel Paul W. Tibbets Jr., had selected Hiroshima, a major Japanese port and military center, for the first actual test. They dropped the 400-pound bomb, sped away. It was Aug. 5, 1945 and man had unleashed atomic power on man.

In the moment of its incomparable blast, air became flame, walls turned to dust. "My God," breathed the crew of the B-29 at what they saw. Members reported, "There

was a terrific flash of light, even in the daytime . . . a couple of sharp slaps against the airplane." White smoke leaped on a mushroom stem to 20,000 feet where it spilled into a huge, billowy cloud (above). Then an odd thing happened. The top of this cloud structure broke off the stem and rose several thousand feet. As it did so, another cloud formed on the stem exactly as the first had done. On the ground, from a distance, a Jap saw the explosion. ". . . A lightninglike flash covered the sky," he said. "All around I found dead and wounded . . . bloated . . . burned with a huge blister. . . All green vegetation . . . perished."



NAGASAKI ATOM BOMB NO. 2 DISEMBOWELED IT

Seventy-five hours after the world's first atomic bombing, an interval marked by President Truman's demand for unconditional surrender, the second bomb was dropped on Nagasaki, shipbuilding port and industrial center. This bomb was described as an "improved type," easier to construct and productive of a greater blast. It landed in the middle of Nagasaki's industries and disemboweled the crowded city. Unlike the Hiroshima bomb, it dug a huge crater, destroying a square mile—30% of the city.

When the bomb went off, a flier on another mission 250 miles away saw a huge ball of fiery yellow erupt. Others,

nearby at hand, saw a big mushroom of smoke and dust billow darkly up to 20,000 feet (*above*) and then the same detached floating head observed at Hiroshima. Twelve hours later Nagasaki was a mass of flame, paled by acrid smoke, its pyre still visible to pilots 200 miles away.

The bombers reported that black smoke had shot up like a tremendous, ugly waterspout. Physicists at the bomber base theorized that this smoke was the pulverized fragments of the Mitsubishi Steel and Arms Works. With grim satisfaction they declared that the "improved" second atomic bomb had already made the first one obsolete.



YOKOHAMA, IMPORTANT SEAPORT ON TOKYO BAY, BURNS FURIOUSLY FROM FIRE BOMBS WHICH B-29s DROPPED IN CALCULATED PATTERNS OVER CITY. FIRES SENT UP

B-29s ALMOST FINISHED JOB

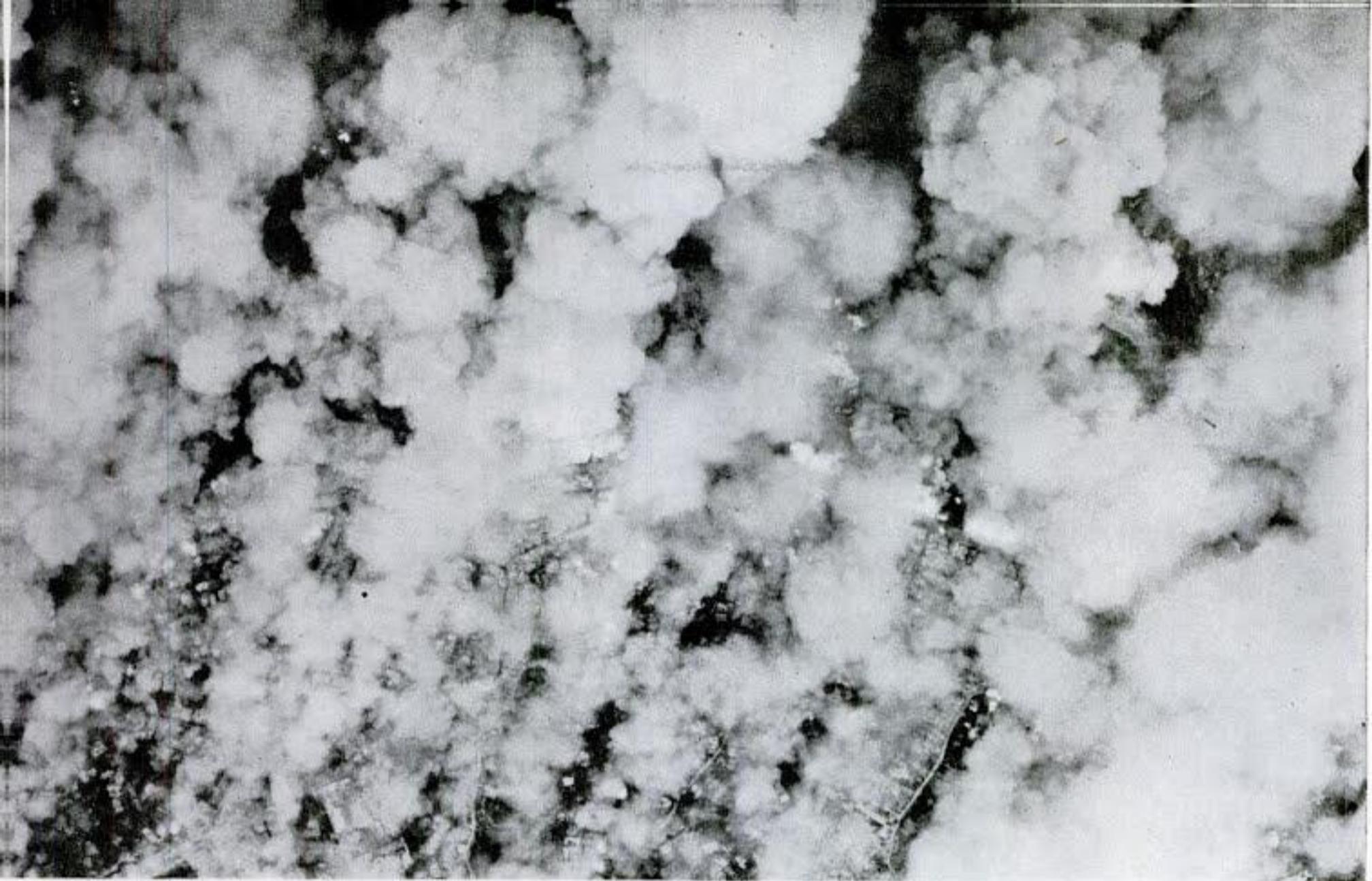
When the atomic bomb came, the strategic bombing of the enemy by the B-29s of the U.S. had already ripped the guts out of Japan's great cities. The five biggest industrial centers, Tokyo, Nagoya, Osaka, Kobe and Yokohama, were all crossed off the airmen's list of bombing objectives several months ago. Most of this pre-atomic destruction of Japan was done by a

hard-bitten, taciturn major general named Curtis Le-May, whose XXI Bomber Command and 20th Air Force, operating out of the Marianas, had isolated Japan with ingeniously planted mines, saturated her war plants with hundreds of tons of high explosives and, most efficient of all, burned out her cities.

Most of the B-29s on the fire-bomb missions car-

HUGE CLOUDS OF SMOKE BILLOW UP FROM KOBE, JAPAN'S SIXTH LARGEST CITY, AFTER B-29s SATURATE IT WITH INCENDIARIES. IN EARLY DAYS AIRMEN CALLED THE





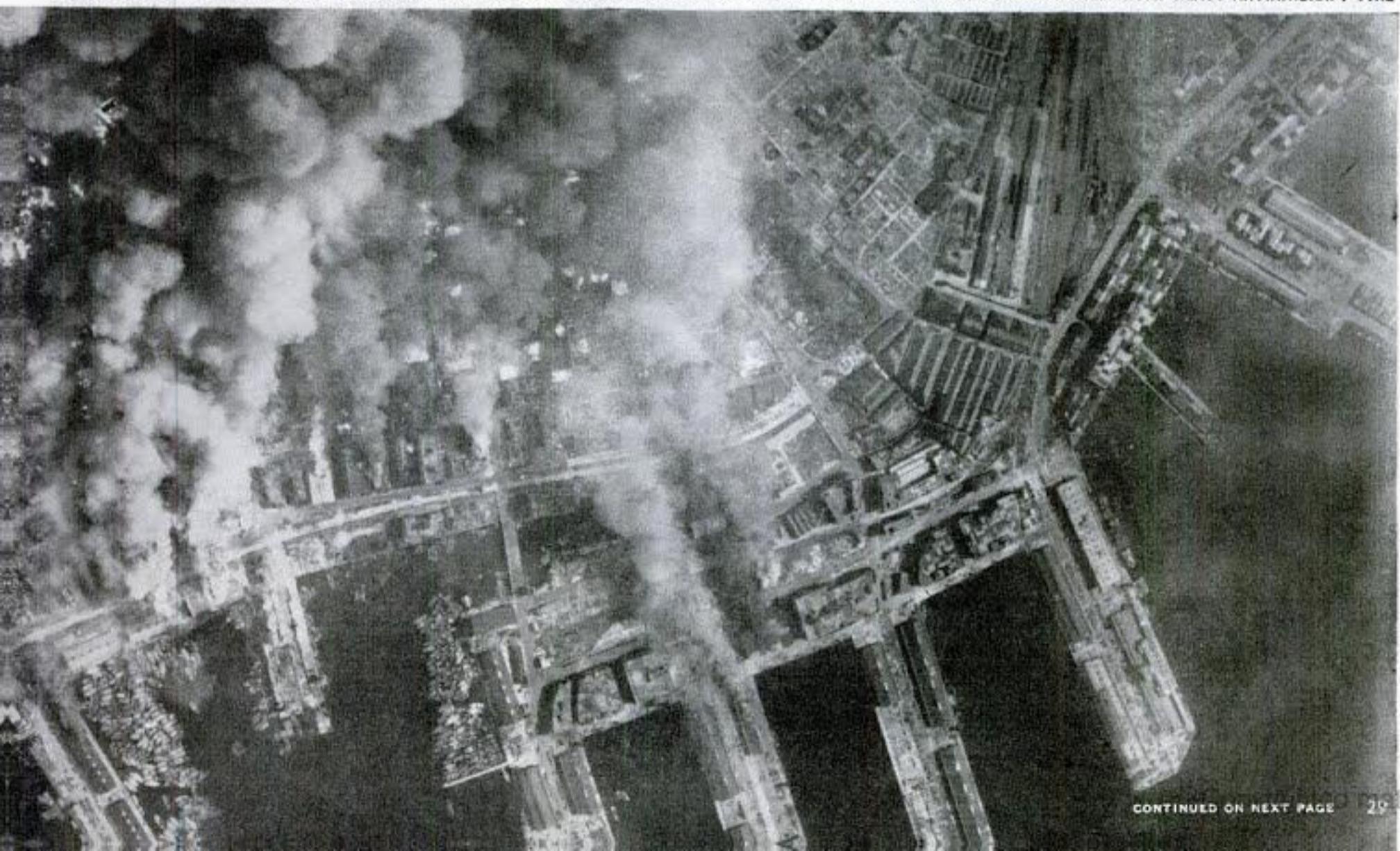
SUCH HUGE HEAT WAVES THAT B-29s WERE TOSSED VIOLENTLY IN CURRENTS AND CREW MEMBERS GOT BACK TO BASE WITH CRACKED LIMBS AND GASHED SKULLS

ried the newly developed "jelly" bombs, which were aimed at different spots in a city and calculated to merge into one huge conflagration. Airmen called the "burn jobs" and a good-sized "burn job" did almost as much damage to property as the atomic bomb did and it also killed almost as many people. Japan's teeming cities were unluckily spread along the Japa-

nese coast where they could be easily spotted by the B-29s' radar (see pp. 96 to 99). Japanese defense against bombers weakened and then practically disappeared. In July, when 5,600 sorties were flown, only 17 were lost. When Carl A. ("Toosey") Spaatz (see cover) moved in as boss of the U. S. Strategic Air Force in the Pacific, fresh from the same job in Europe, he described

the B-29 setup as the best-organized air operation he had ever seen. Then, with LeMay as chief of staff and seasoned veterans coming in from the European air war, Spaatz gave the air attack on Japan full throttle. Weeks ago, before they knew about the atomic bomb, airmen in the Pacific were talking about finishing off Japan without having to land troops on her shores.

APPROACH TO KOBE "FLAK ALLEY" BECAUSE JAPS, WHO HAD MOVED SHIPPING TO SHELTERED PORTS LIKE THIS, DEFENDED THEM WITH HEAVY ANTI AIRCRAFT FIRE





HIROSHIMA BEFORE

To the atomic-bomb-laden B-29 "Enola Gay" droning overhead, Hiroshima looked like this—a typically Oriental congestion of modern industry, rickety dwellings, shrines and quaint teahouses. It had a population of 344,000, which made it Japan's seventh city. It was a military center, dating from the days of the Russo-Japanese War when the mikado made its historic castle his

wartime headquarters. In World War II its army transport base, ordnance depot and food depot (*lower right*) made it a military target, as did the nearby docks and textile mills.

In the heart of the city were oil stores, electrical works and many bridges spanning the arms of the Ota River on whose delta it stood. There were centuries-old temples and a public garden which was famous for its flowering trees.



HIROSHIMA AFTER

The mosaic of reconnaissance photos (above) made the day after Hiroshima was bombed shows circle of flattened ash, stretching almost four miles from foothills (upper left) well into the outlying eastern area (right). A few buildings still stood, spared by the freakish dynamics of explosion. Smoke drifted up.

Within the grim circle, in which 100,000 reportedly

died, a rail station, generator station, Hiroshima's telephone company, scores of big buildings, hundreds of small ones were rubble. Eleven bridges were destroyed or damaged. Textile mills and rail centers nearer the circle's edge were damaged or 100% destroyed. Seriously damaged, too, were the relatively distant army bases. The atomic bomb had blown three fifths of Hiroshima off the face of the earth.

THE ATOMIC AGE

THAT FLASH SHOWED WHERE MAN'S REAL PROBLEMS ARE: NOT UNDER THE BED BUT IN THE CELLAR

The Second World War, which had been tapering off to a whimper, is ending instead with a bang. That bang—the atomic bomb—caught the Allied world at the edge of a haunted doze. Still fighting, we had paused to sniff a dream, a dream of the return to "normal" life.

Our Congress had gone home to take bows for San Francisco and Bretton Woods, to start worrying about Russia and reconversion. Columnists had begun echoing the arguments of the quarrelsome '30s, using the same old lingo, the same old frames of reference. Had the ghost or disguised person of Adolf Hitler passed by two weeks ago, he might have reflected, "This is—or soon will be—where I came in."

Then a single bomb fell from a single plane on the shore of the Inland Sea, killing between one and two hundred thousand people.

THE TUNNEL

When man enters a year like 1939, he cannot expect ever to find the entrance to that fateful tunnel again. He is lucky enough to find the exit, which sends him out into an entirely different country. But how long it takes him to see the change! Even men who had most eagerly called this war a revolution did not recognize their own vindication.

Responses learned long ago dug their same old course through the individual nervous system. Cartoonists, still flexing democracy's muscles, went BAM! POW! and SO SORRY! at Jap expense. Left-wing editorialists at once voiced alarm lest "the cartels" come to control this uncontrollable new secret. Even President Truman, in his cool announcement of the miracle, struck no newer or grander note than national self-congratulation.

Not that there was no hysteria. In the French foreign office, technicians were busy annexing Saar and Ruhr coal; when they heard the news they felt foolish, wondered whether coal was obsolete, went fishing. Military scientists speculated wildly about what the new weapon does to armies, navies, the art of defense. For if there is no defense, then perhaps man must either abolish international warfare or move his whole urban civilization underground.

To such speculations Truman's cool and unimaginative tone was a salutary antidote. So, too, was the almost negligent manner in which he used—or rather failed to use—the atomic bomb as a diplomatic weapon against Russia. America, he said, is now "the most powerful nation in the world—the most powerful nation perhaps in all history." All the more reason, therefore, to stick to the Russian policy we had made before: to welcome Russia's entrance into the Japanese war and confirm our intention to keep world peace on a genuinely Allied basis. There were Americans who felt a Jovian impulse to redress the wrongs of Eastern Europe by threatening to hurl atomic thunderbolts from British bases. Instead we stood by Potsdam and our word.

Ay, do thy worst. Thou art omnipotent. O'er all things but thyself I gave thee power...

Thus, in Shelley's version, did Prometheus defy his enemy Jove. But when America's omnipotence passes like Jove's it will not go down with a Promethean curse. So far, at least, we have shown some power over ourselves: Prometheus, the subtle artificer and friend of man, is still an American citizen. Not naked force, but "the basic proposition of the worth and dignity of man . . ." as Truman put it, "is the strongest, most creative force now present in the world."

ANTS AND MEN

After all, this bomb has been inevitable for a long time. American kids, fans of Flash Gordon, reacted to the news with peanut-butter stares which seemed to say, "What's all the excitement?" or, "We've had it for years." If you want to share the philosophic calm of childhood over this event, consider the ant, whose social problems much resemble man's. Ants have lived on this planet for 50 times as many million years as man. In all that time they have not committed race suicide and they have not abolished warfare either. Their nations rise and fall and never wholly merge. Constructing beautiful urban palaces and galleries, many ants have long lived underground in entire satisfaction.

ON THE TUNNEL WALLS

Thus ants and mythology both reassure us, in awe before the harnessed infinite. Yet our human position today needs measuring by more familiar standards. What was it we scratched on the tunnel walls?

The Japanese Christian, old Kagawa, made a broadcast after the Hiroshima holocaust. He said that American cruelty, expressed in this horrible weapon, exceeded that of Genghis Khan and contrasted especially with the "careful and thoughtful" Japanese air raids on Shanghai and Nanking against which we protested so piously in 1937. Strange as this sounds, it is not untrue. Every step in bomber's progress since 1937 has been more cruel than the last. From the very concept of strategic bombing, all the developments—night, pattern, saturation, area, indiscriminate—have led straight to Hiroshima, and Hiroshima was and was intended to be almost pure *Schrecklichkeit*.

It is bootless to argue at what stage of modern warfare, or by whom, the old Hague rules of war were violated. The point is that Americans, no less than Germans, have emerged from the tunnel with radically different practices and standards of permissible behavior toward others. A portent: When this bomb came into the world, human slavery was just being reintroduced into Europe, with specific American consent. You may not wish to call it "slavery," but Germans are doing forced labor for Russians without pay.

Sure, slavery is a matter of definition, a difference not of kind but of degree. So is "terror" bombing; so are all forms of cruelty; so is everything under the sun. Since Rutherford explored the atom's void there has been no excuse for not knowing that all

differences are of degree. Atoms like those we split at Hiroshima make up all matter, all energy, all flesh; whether that flesh be "Greek or barbarian, Christian or Jew, bond or free."

IN THE CELLAR

Except for the hastened defeat of Japan, the atomic bomb answers no questions. But it rearranges the questions, old and new, large and small, already in men's minds and throws on all of them a blinding new perspective.

Two weeks ago such problems as Russia and reconversion were growing to be huge nameless shapes under the bed. Now they are just mundane, tangled, daylight questions. The really terrifying questions are not under the bed but in the cellar, where in fact they have been since man first built his house in this world. The most obvious of these questions is the question of power. The atomic scientists had to learn new ways to control it; so now does political man.

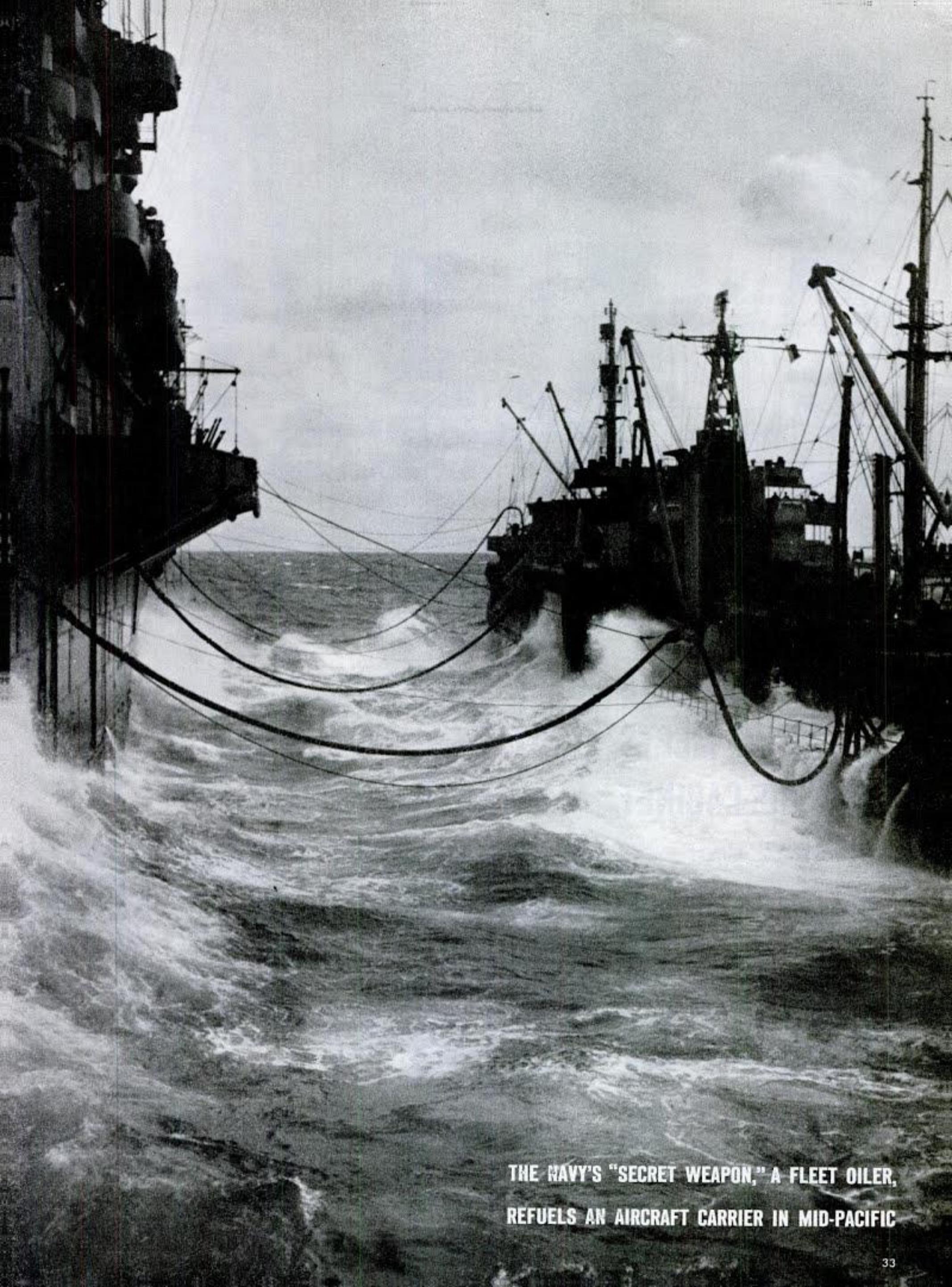
Power in society has never been controlled by anything but morality; and morality (in Bertrand Russell's formulation) is of two kinds: the social pressure of the dominant group ("positive" morality) and individual morality. Nowadays, says Russell, "positive morality [is] in effect a department of government." The example of Germany shows us how unsafe a guide that is.

Our sole safeguard against the very real danger of a reversion to barbarism is the kind of morality which compels the individual conscience, be the group right or wrong. The individual conscience against the atomic bomb? Yes. There is no other way.

The thing for us to fear today is not the atom but the nature of man, lest he lose either his conscience or his humility before the inherent mystery of things. Atomic science certifies this mystery. Its own laws condemn us to ultimate ignorance; but also to the eternal freedom of choice inherent in an indeterminate universe. No limits are set to our Promethean ingenuity, provided we remember that we are not Jove. We are not ants either; we can abolish warfare, and mitigate man's inhumanity to man. But all this will take some doing. And we are in a strange new land.

PICTURE OF THE WEEK

As the war was ending, the Navy let the country get its first look at one of its secret operations: refueling at sea. So important was this refueling operation that Admiral Nimitz called it his "secret weapon." Fleet oilers, going out into battle areas to rendezvous with warships within range of enemy planes and submarines, freed the fighting fleets from dependence on land bases, enabled them to stay at sea for months and strike at will anywhere in the big ocean. Bold methods of mid-ocean refueling while ships were on the move gave the fleet unheard-of freedom and endurance which, as much as its size and firepower, made the U. S. Navy a new kind of sea weapon.



THE NAVY'S "SECRET WEAPON," A FLEET OILER,
REFUELS AN AIRCRAFT CARRIER IN MID-PACIFIC



TRUMAN'S WAR CABINET meets with him in White House to discuss problems arising from Japan's peace offer. Left to right are Anderson (Agriculture), Schwellenbach (Labor),

Blandford (National Housing Agency), Krug (WPB), Snyder (War Mobilization), Davis (Economic Stabilization), Crowley (Foreign Economic Administration), Wallace (Commerce), Fortas (Interior), Hannegan (Post Office), Stimson (War), Byrnes (State), President Truman, Vinson (Treasury), Clark (the Attorney General) and Forrestal (Navy).

TRUMAN REPORTS TO NATION, MEETS WITH HIS CABINET

The week the surrender offer came was especially heavy for President Harry S. Truman. On Thursday night he made a radio report to the nation (*opposite*). On Friday, when the Jap peace offer was first broadcast from Tokyo, he entered into a series of conferences with Secretaries Byrnes, Stimson and Forrestal (*below*). Before drafting an answer to the Jap proposal he met with his cabinet (*above*) and consulted London, Moscow and Chungking by telephone.

The public heard some of the important things that were in Harry Truman's mind and heart as the war

ended. In his broadcast he told Americans and the rest of the listening world that he had made no secret pacts at Potsdam, that the U. S., Canada and Great Britain would closely restrict the atomic bomb which had been used to "shorten war." Eloquently he concluded, "We know now that the basic proposition of the worth and dignity of man is not a sentimental aspiration or a vain hope or a piece of rhetoric. It is the strongest, most creative force now present in this world. Now let us use that force and all our resources and all our skills in the great cause of a just and lasting peace."



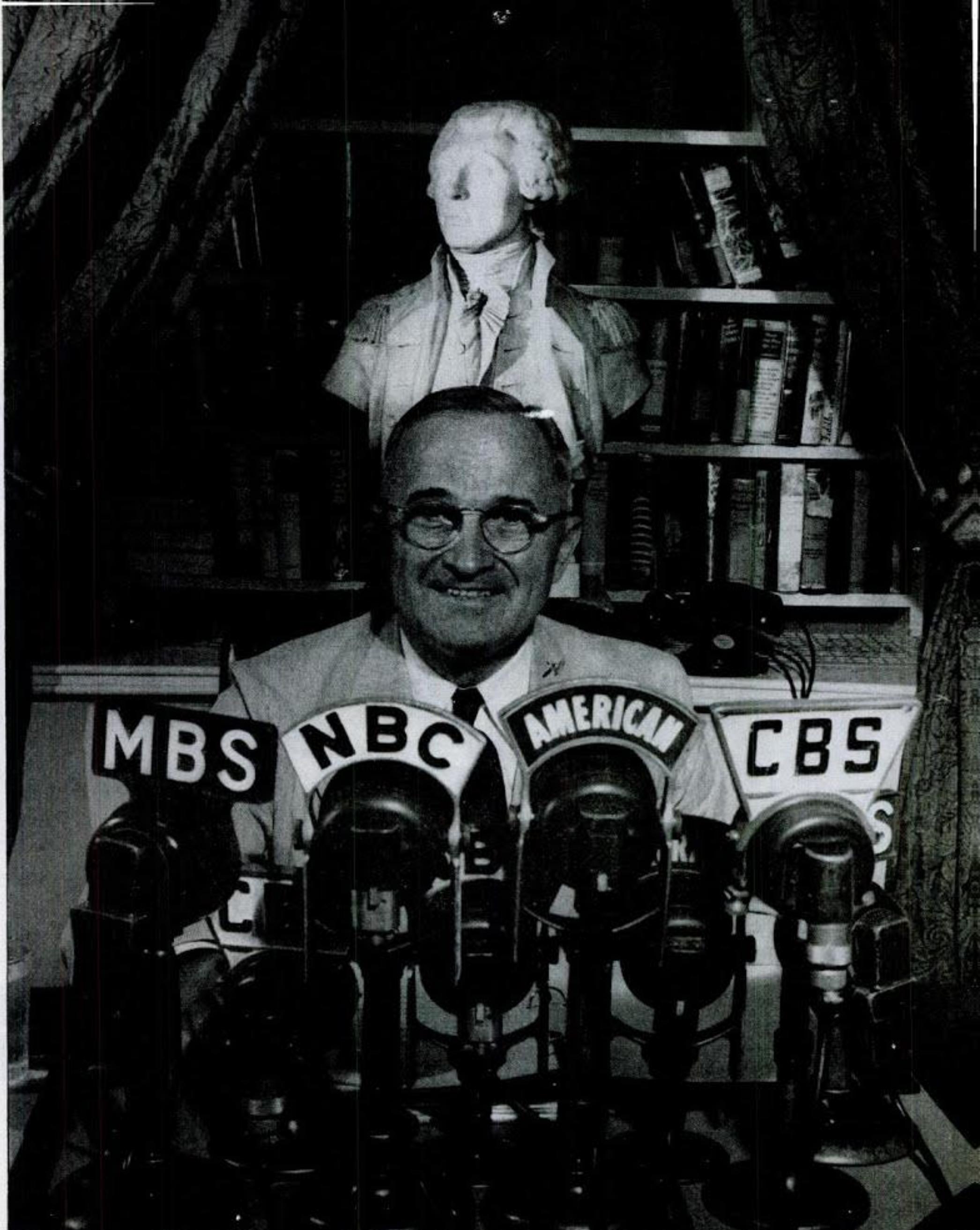
JAMES F. BYRNES, Secretary of State, enters the White House for conference. Byrnes drafted reply to Japan's offer.



HENRY L. STIMSON, Secretary of War for an Army of 8,300,000 men, arrives for consultation with the President.



JAMES V. FORRESTAL, Secretary of Navy for a Navy of 4,000,000 men, had many talks with Truman during week.



PRESIDENT TRUMAN, at desk with a statue of La Fayette behind him and network microphones before him, smiles

before beginning his 30-minute broadcast. Of his Potsdam meeting with Attlee and Stalin, the President stated that the

three great powers were "now more closely than ever bound together in determination to achieve just and lasting peace."



U.S. AND RUSSIAN STAFFS confer at Potsdam on Jap war. Seated at right is U. S. chief of staff, General G. C. Marshall. At his right is Fleet Admiral E. J. King. Behind Marshall is naval

Lieut. Chase, a translator. Clockwise from the general are Air Chief General H. H. Arnold; Brig. General L. Norstad; Lieut. General John E. Hull; Major General John R. Deane, chief of

THE U.S.S.R. JOINS THE WAR AGAINST JAPAN

On Aug. 8, three days after the first atomic bomb was dropped, the Union of Soviet Socialist Republics declared war on Japan. Russia's decision to join the Pacific fight, originally pledged to President Roosevelt at Teheran, was in exchange for the Allied commitment to open a second front in Europe. At Potsdam, President Truman pinned the Russians down on a definite date for their entry. Generalissimo Stalin agreed to declare war on Aug. 15, but for some reason, perhaps atomic, the Soviet declaration was made a week earlier, exactly three months after victory in Europe.

At Potsdam the chiefs of staff of the Red Army and the U. S. Army met together for the first time to coordinate the strategy of the war's closing phases. As a result of decisions at this meeting, Chinese and U. S. land and air units under General Wedemeyer began operations to hinder Jap troop movements from south to north in China even before the Soviet's war manifesto. This declaration stated that "the Allies submitted to the Soviet Government a proposal to join the war against Japanese aggression and thus shorten the duration of the war...and facilitate the speedy restoration of



the U.S. Military Mission in Moscow; Vice-Admiral C. M. Cooke Jr.; Brig. General A. J. McFarland; Captain C. J. Moore; a Soviet naval adviser; Fleet Admiral H. G. Kuznetsov, People's

Commissar of Navy; General A. I. Antonov, the Red Army chief of staff; a Red Air Force Marshal; Colonel General Slavin, deputy chief of staff; and a member of General Antonov's staff.

universal peace. Loyal to its Allied duty, the Soviet Government has accepted the proposal of the Allies. . . ."

Ready in Siberia was a specially trained and equipped Far East Red Banner Army of about a million men. During the last year it had been considerably bolstered by the arrival in Vladivostok of a chain of 60 U.S. Liberty ships, plying from U.S. Pacific ports, laden with supplies including oil. These ships had been transferred to Russia and had sailed with Red flags flying under Jap eyes into the Siberian harbor.

At ten minutes after midnight of Aug. 8 the Soviet

forces struck across the 2,300-mile Manchurian border to avenge "old scores" which dated back to Jap disputes with czarist Russia 70 years ago. Their battle cry was "Death to the Samurai."

By the time the Jap peace offer came, four Siberian-based Soviet Far Eastern forces had crossed the frontier and were converging on Harbin, one of the chief cities in Japan's stolen Manchurian empire. Other Red Army groups had driven south from Vladivostok to invade Korea and from Red-occupied northern part of Sakhalin Island had begun an offensive to retake the

Japanese controlled southern half, which Russia once owned.

In Moscow, Chinese Premier Soong and Premier Stalin were busy in negotiations. Russia presumably wanted from China certain bases and concessions for its part in the Jap war. These included full control of oil-rich Sakhalin Island and some sort of use of Port Arthur, both won from Russia by the Japs in the 1905 war; a change in the control of the strategic Chinese Eastern Railway; establishment of an independent Korean Republic, which would then be within Russia's eastern security sphere.

VICTORY REPORTS AROUND THE WORLD

U. S. FIGHTING MEN LEAD WILD CELEBRATIONS AT JAPS' SURRENDER OFFER

In the major capitals of the world and at combat ports throughout the Pacific, LIFE correspondents witnessed celebrations that flared up at the first word of Japan's offer of surrender. These cable and wireless dispatches record the celebrations.

LONDON The people didn't wait for an official announcement. A conga line of American and British soldiers wound slowly down Regent Street to Piccadilly Circus. Laughing Americans hoisted Royal Air Force men, Tommies, WACs and UNRRA girls onto their shoulders. Two Chinese soldiers were plucked from their car by GIs and carried shoulder-high into the Regent Palace Hotel, where a one-legged British officer used his crutch to conduct a throng of Americans singing *God Save the King*. In Prime Minister Attlee's district in the East End, where much of the population is Chinese, youngsters heaved rubble from bombed buildings into the air and until long after midnight the people sang and danced around bonfires. Winston Churchill received the news at his Westminster Gardens flat. He lit a fresh cigar and said: "At last the job is finished."

WALTER GRAEBNER

PARIS At Rainbow Corner a GI rushed in and yelled, "It's over in the Pacific." GIs and WACs, shouted and pounded each other on the back and ran out into the streets. There they shook hands with every passer-by and soon Frenchmen joined them in impromptu parades down the Champs-Elysées and through the Grands Boulevards. Soldiers and civilians linked their arms together, and as they marched they sang *Don't Fence Me In*. General de Gaulle's face broke into a smile when he heard the news at the conclusion of a heavy session with his ministers on internal politics. A truck driver waved a *Stars and Stripes* with the headline "Stimson says he'll recheck to see if Army can be cut," and commented, "Hegoddamn better." Pfc Eddie Harries of Philadelphia stopped a U.S. nurse on the street and said, "I want to kiss all American girls, now that the war's over." The answer he got was, "Well, what are you waiting for, soldier?"

HARRY ZINDER

CHUNGKING Shouting echoed up from downriver, then firecrackers began to crackle. Streets spilled over the



GIs CARRY THE FLAG THROUGH PICCADILLY CIRCUS

edges as everybody and his wife and babies came out to celebrate. Others in China have been anti-Emperor but these people do not care about the technicalities of Unconditional Surrender as the retention of Hirohito. They had been waiting for eight years and this was their day. Jeeps crawled through the streets, with passengers climbing all over them. Americans were mobbed and almost buried in gratitude. The Chinese shouted, "Mei-kuo ting hao," which means



CIVILIANS AND GIs BOOST UP A CHINESE SOLDIER

roughly "Americans are swell." I asked one grinning Chinese, "Where will you be in a month?" "Not Chungking, not much," he chortled. "Nanking, Nanking, Nanking."

ANNALEE JACOBY

MOSCOW The weather has been foul here lately and even the exciting news of the past few days has not seemed to change the atmosphere as much as one might expect. Russia's entrance into the Japanese war has been reported by front-line correspondents who have dealt mainly with the difficulty of the terrain, but they have also reported meeting Japs who had picked up American phrases in their Pacific battles with U.S. marines. The subsequent Japanese peace proposals have been larded into radio broadcasts in terse bulletins. But what has seemed to grip most imaginations has been news of the atomic bomb. This story was quietly broken to the Russian people by a 74-line story on the back page of most newspapers. The story consisted entirely of excerpts from President Truman's announcement and that was all. No comment. No leaders. No editorial comment of any kind. But nobody missed the story or what it implied. And on everybody it had an odd, sobering effect. It was a little as if people had walked into their homes to find Buck Rogers in full charge. For two days the people in Moscow—Russians and foreigners alike—could hardly talk about anything else. The talk was of the layman's version of chemistry and physics, of armchair military strategy and of simple human hopes and fears. It is a worth-while commentary that more people expressed fears than any kind of optimistic hope over this new compact energy source with its shattering, staggering power for destruction. Yet in the fields of politics and science Soviet officialdom was officially silent. I requested an interview with any Soviet scientist who had in any way been engaged in research involved with isotopes of oxygen, nitrogen, hy-

drogen or heavy metals. Said the Academy, "Ah yes, we understand your interest. But unfortunately all these people are out of Moscow and there is no one who can talk about such things."

CRAIG THOMPSON

BERLIN The GIs are jubilant. They are all figuring that peace in the Pacific will save them from being sent out for more fighting and probably speed the demobilization of occupation units here. The Germans, less jubilant, are shaking their heads sadly, saying, "Even the Japanese are wiser than we. They had sense enough to quit in a hopeless situation." Then they shudder and say, "Thank God that atomic bomb wasn't perfected three months earlier." All the Russians I've talked with have been pleased and proud and inclined to say, all seriously, "The Bulgarians surrendered only a few hours after we declared war on them. The Japanese must be a little tougher."

JOHN SCOTT

EN ROUTE TO HOME Our C-47 was climbing steadily up over the Alps, a half hour or so out of Salzburg in Austria, when the door to the crew's compartment opened and a tall, lanky radio operator stepped out and crouched on the floor of the fuselage. "The Japs have quit," he shouted. "It just came over." There were seven of us and at first we just looked at each other, smiling. A young major next to me said, "I guess the Ruskies and those atomic bombs were just too much for them." A sergeant beside him kept pounding one fist into the palm of his other hand while he repeated over and over again, "Oh, Boy, Oh, Boy! Oh, Boy!" But next to him sat a middle-aged infantry colonel with a deeply tanned face and steel-gray hair. He didn't say anything but looked out his window and in a little while there were tears running down his cheeks.

TOM DURRANCE

WASHINGTON For four days the people in Washington and the people throughout the country at large have had their breakfast accompanied by two-inch headlines screaming of the death-dealing atomic bomb, war at last between Russia and Japan and, finally, the Japanese offer to surrender. But everyone here went to work as usual. There was a buzzing of talk about the Emperor and his



LONDON BOBBY GETS HOISTED ALOFT BY CROWDS

white horse, about reconversion problems and the problem of jobs both for veterans and for those who will be laid off. A Washington government worker who has done her small routine job well was at her desk today, perfectly willing to keep at it until the very end. "It's going to take a long time to live in a world at peace," she said, "and the sooner we get started the better."

JOAN PATERSON

OKINAWA

The first news reaching Okinawa of a peace proposal was greeted by jubilant GIs who slapped each other's backs, danced, cheered and shouted, "To hell with Golden Gate by '48, we'll be home by September 8." Most GIs took every weapon within reach and started firing into the sky with rifles, 45s, ack-ack and machine guns and the sky was crisscrossed with literally millions of rounds of tracers. It looked like a 4th of July celebration, only noisier and more spectacular. Trigger-happy kids fresh from home got their first opportunity to fire their guns but veteran, combat-wise correspondents and officers donned helmets and ran for shelter. The sky was thick with shrapnel and flak. In the district where I was, 23 men were hurt and hospitalized as a result of the promiscuous shooting and the falling flak. Some ships in the harbor, not knowing of the peace proposal, thought it



WHITE HOUSE REPORTERS DASH TO GIVE THE NEWS

stand why the lights were on everywhere, so I hopped outta bed and went onto the street where the fellers were all jumpin' around and actin' crazy. Then I saw an MP and he was jumpin' around, too, and hollerin' his head off which gave me quite a start because I'd never seen an MP like that before. Man, that's the first happy MP I ever did see. And then the radio came on and I was sure amazed to find that all the yellin' was because the Japs wanted peace."

GEORGE SILK

TINIAN

The B-29 pilots were just being briefed for their 35th mission (their last before going home) when their group leader interrupted. "We have no official word of the Japanese surrender proposal," he said, "but we have just received a message that tonight's mission has been cancelled." There was a moment of incredulous disbelief, and then a roomful of 300 men, just about to risk their lives on a tricky daylight mission, relaxed. Their joy was so pure and unadulterated that it wasn't expressed in any great violence. Rather, there were joyful grins and a gripping of the shoulder or hand of the fellow alongside or in front. Very few stood up, and a few just stayed quiet as though in prayer. Then word was given that there would be no celebration because the mission might still have to be flown. Everyone was ordered to hit the sack and in ten minutes the lights were out.

J. R. EYERMAN

NORTH FIELD AIR BASE, GUAM

The news caused the men to run out of their Quonsets shouting and shooting off so many small arms that the officer of the day had to broadcast a warning that the shooting must stop. Enlisted men pushed their way into the mess hall even though it was midnight, banged away at the piano and sang songs, including "When the war is over I'll enlist again, like hell I will." Bottles of whiskey that had been squirreled away in secret hiding places were suddenly broken out and toasts were drunk all around. One cynical private—who was on KP and had to watch the celebration—moaned, "The war may be over but here I am still peeling potatoes." The only unhappy man I have seen is a young engineering officer who had spent days working out a complicated fog oil system for his ship. Disconsolately he said, "Now there won't be a chance to use it."

BILL HOWLAND

MANILA

Suddenly a light flooded out from a barracks door and a GI leaped out giving full throat to a bone-busting cowboy yell. The sound was picked up and echoed all over Manila as the news

spread. Orange tracers floated through the black sky. Flares went up over the port. The streets were dizzy with blazing headlights. Jubilant, victorious veterans careened through the streets in jeeps and cars, whooping it up. Drivers sat on their horns, soldiers banged on the sides of their jeeps with iron pipes. Gangs of Filipino children ran about piping, "Veetoree, Veetoree." Filipinos rode around in crowded trucks singing tipsily, *God Bless America*. I recalled the days before the Japs occupied this city five years ago when the same tune had been played dirgelike on a department-store organ throughout the daylong air raids. Underneath the jubilation at peace news there was some uneasiness on the part of many Filipinos who foresee the political and economic difficulties ahead. U. S. soldiers discussed the problem of the Emperor but not as rationally and soberly as did many Filipino leaders. For the most part the GIs said, "Let 'em keep their Emperor. Hell, I'll give him my pants if he wants 'em. We're going home."

SHELLEY MYDANS

HONOLULU

Early this morning ten road workers who were repairing King Street stopped and tipped their sun helmets to a B-29 passing low overhead after taking off from Hickam Field.

ELIOT ELISOFON

GUAM

First there was a single shot, then a burst, then individual shots and finally small-arms fire and everything else broke out all over the sky and the noise almost drowned out the shouts and whistles of men close by. We had to crowd close to the radio to get the flashes and in the general babel there were immediate arguments about the Emperor. One man said, "Hell, they can keep the Emperor—and I'll give a couple of officers to boot." A sergeant off in a corner, talking to no one in particular, said, "I thought this me-and-God Emperor stuff was what we were all fighting against." About that time the public-address system came on and announced the officers' club would reopen and stay open until one o'clock. "Christ, that makes it official," one guy said. "Nothing but the end of the war would make our officers' club open up after hours."

JOHN PURCELL



HUGE CHICAGO SEAMAN CARRIES NISEI SOLDIERS



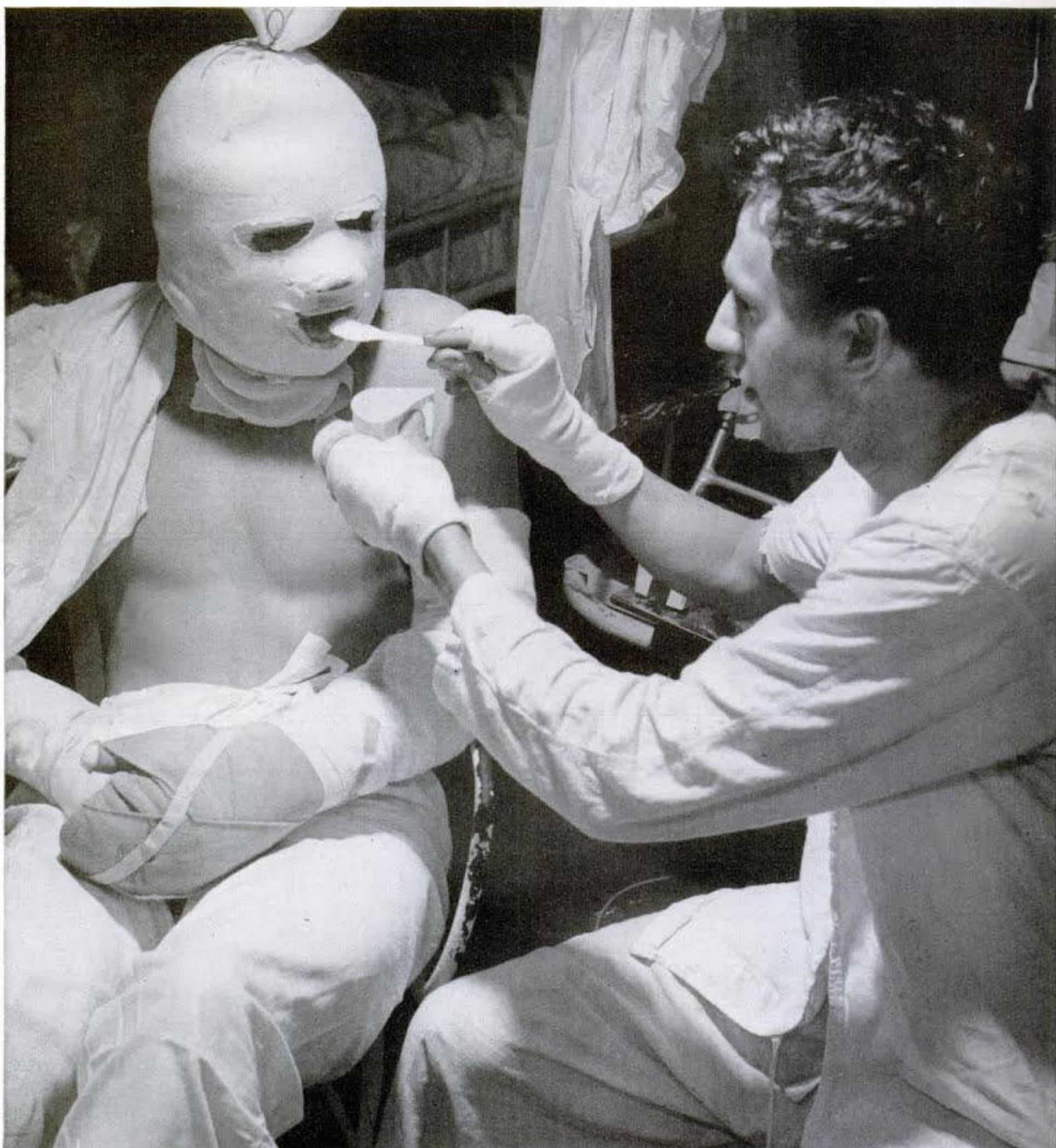
MANILA CROWDS SWARM IN STREETS ALL NIGHT

was a Kamikaze attack. A general quarters alarm was sounded, causing men to go to their stations clad in underwear, steel helmets and Mae Wests. Smokescreens were laid and most of the ships opened up with antiaircraft. This barrage by shore and water batteries was caused partly by the fact that news of the peace proposal almost coincided with an air alert. When those who hadn't heard the news saw and heard the celebrants' barrage, they opened fire, too. Seasoned correspondents of many campaigns said this was the most spectacular show they had ever seen. Shrapnel and bullets pierced many tents. The pyrotechnics lasted only a few minutes as those who listened at radios got word from the High Command to cease firing. Some quick-thinking unit commanders ordered troops to fall in with their rifles, then told them, "The first man firing his weapon will be court-martialed." (A saddening note: six men were killed during the excitement.)

GEORGE LACKS

CINCPAC HQ GUAM

When I awoke this morning a Negro soldier was standing beside my bed, his face covered by a big shiny smile as he told me what had happened to him: "I woke up as everyone was shoutin' and hollerin', and so I sat up and shouted and hollered, too. But I couldn't under-



HIS HEAD WEIRDLY ENCASED IN WHITE BANDAGES COVERED WITH ELASTIC STOCKING, A SAILOR WHO WAS TERRIBLY BURNED AT SEA IS FED A LITTLE ICE CREAM

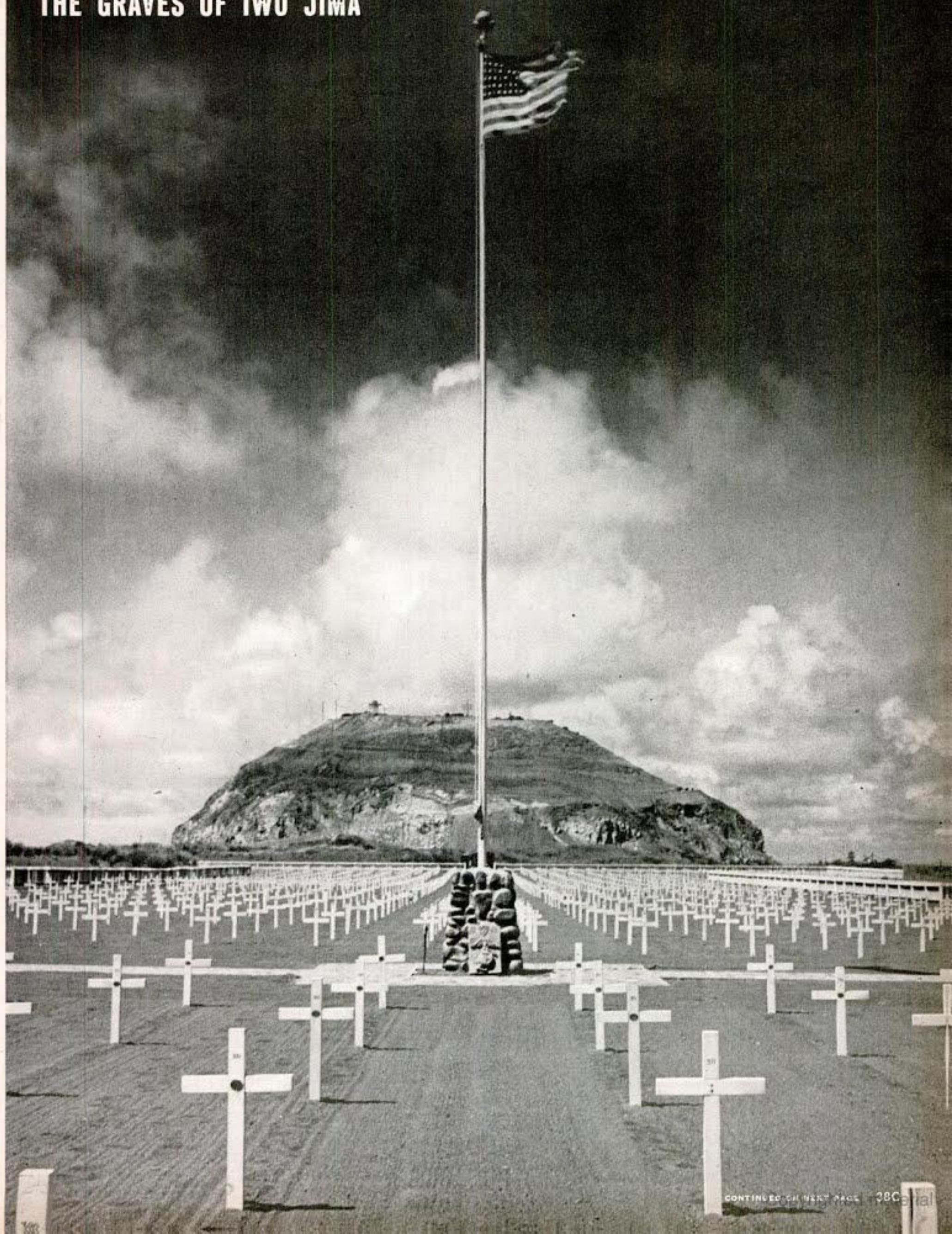
U. S. HAS PAID A HEAVY PRICE IN THE PACIFIC

War in the Pacific was not fought cheaply. The price was paid by more than 175,000 young Americans who were wounded in battle. At Pearl Harbor, at Midway, in the Solomon seas, in the Leyte Gulf, they were blasted by shells and seared by burning oil. In the lush jungles of Guadalcanal and on the bleak tundra of Attu, in the muck of Burma and on the pretty farmlands of Okinawa, on the awful sands of Tarawa and Saipan and Iwo Jima, they were stricken by rifle bullets, by mortar shells and by land mines.

But a more final kind of price was paid by the more

than 100,000 young Americans who were killed in this Pacific war. Their bodies now rest beneath simple sand mounds that are decorated by comrades who somehow managed to stay alive. On the tiny island of Iwo Jima is a cemetery for the 5th Marine Division (*opposite page*). It has a white picket fence and white-washed stones and white crosses against the gloominess of its Mt. Suribachi background. But for many of the other young Americans who died there will be no white crosses. Their bodies were forever committed to the eternal waters of the great and markless ocean.

THE GRAVES OF IWO JIMA



THE JAPANESE EMPEROR IS JAPAN

BUT HE HAS BEEN USED BY THE MEN WHO REALLY RUN JAPAN

Tokyo newspapers last week began running feature stories on 11-year-old Prince Akihito *Tsugu-no-Miya*, heir to the throne, in apparent anticipation that he might soon succeed his father, Emperor Hirohito. These stories were tacit acknowledgments that what the Japanese considered most important was not the Emperor himself but his office. On this page LIFE prints extracts from an authoritative article on the Emperor and his office which originally appeared in Fortune.

The Emperor of Japan is neither a man nor a ruler. Nor is he simply a god living in Tokyo. He is a spiritual institution in which center the energy, the loyalty and even the morality of the Japanese; he is the divine source of temporal power and the fountain of honors; for the Japanese he is the reason for existing and also the reason for dying. The Japanese people are expected to serve him and to "set his mind at rest." He is the physical incarnation of the state. He is Japan.

As such, his utility value is high, and he has been much used by the groups that really run the country. When big business wanted to discomfit military opposition to a disarmament treaty, they used the Emperor's signature. When the military wanted to join the Rome-Berlin Axis, they used his signature. His name withdrew Japan from the League of Nations, declared war on the U.S., endorsed the maneuvers and political changes of power politicians and justified state control of Japan's whole social fabric. For the name of the Emperor has as much weight in Japan as the unanimous will of the people would have in America.

His value to Japan is his value as a myth, and the myth has been artfully assembled and cleverly merchandised. He is the offspring by direct descent of the Emperor Jimmu, founder in 660 B.C. of Japan, and great-great-grandson of the sun goddess Amaterasu. He is the inheritor of the divine command of *Hakko Ieikiu*—bringing the eight corners of the world under one Japanese roof. Japanese are taught to consider the name of the Emperor too awful to utter and certainly too sacred to print. No one can look down on the Emperor, and therefore no one can put up high buildings in the vicinity of the palace. Shades must be drawn in all upper windows whenever the Emperor goes out into the street. When he passes all heads must be bowed in abject humility; few eyes dare to look directly at his august presence. No one may ride a white horse, because the Emperor rides one.

Who the Emperor is is unimportant. It is of not the slightest importance that Hirohito is 44 years old; that he plays indifferent tennis and golf, studies marine biology and writes "peace" poetry; that he wears spectacles; that he is bored by foreign policy and army maneuvers.

It is always the name and not the man that carries weight. The name approves plans and makes decisions theoretically immutable. The name under an imperial rescript—whether the Emperor writes it or not—gives to a declaration of war or to a statement on the duties of soldiers the awesome attribute of divine law. The famous Meiji Rescript to Soldiers and Sailors, the bible of the army and navy, has the force of a categorical imperative. One of its lines reads, "Bear in mind that duty is weightier than a mountain, while death is lighter than a feather." The imperial name turns this figure

hold ministers by no means control the use of the imperial name and therefore are limited in power. But their access to the imperial ear enables them to channel certain ideas to the throne and certain ideas away from it. They have been important enough to be assassinated.

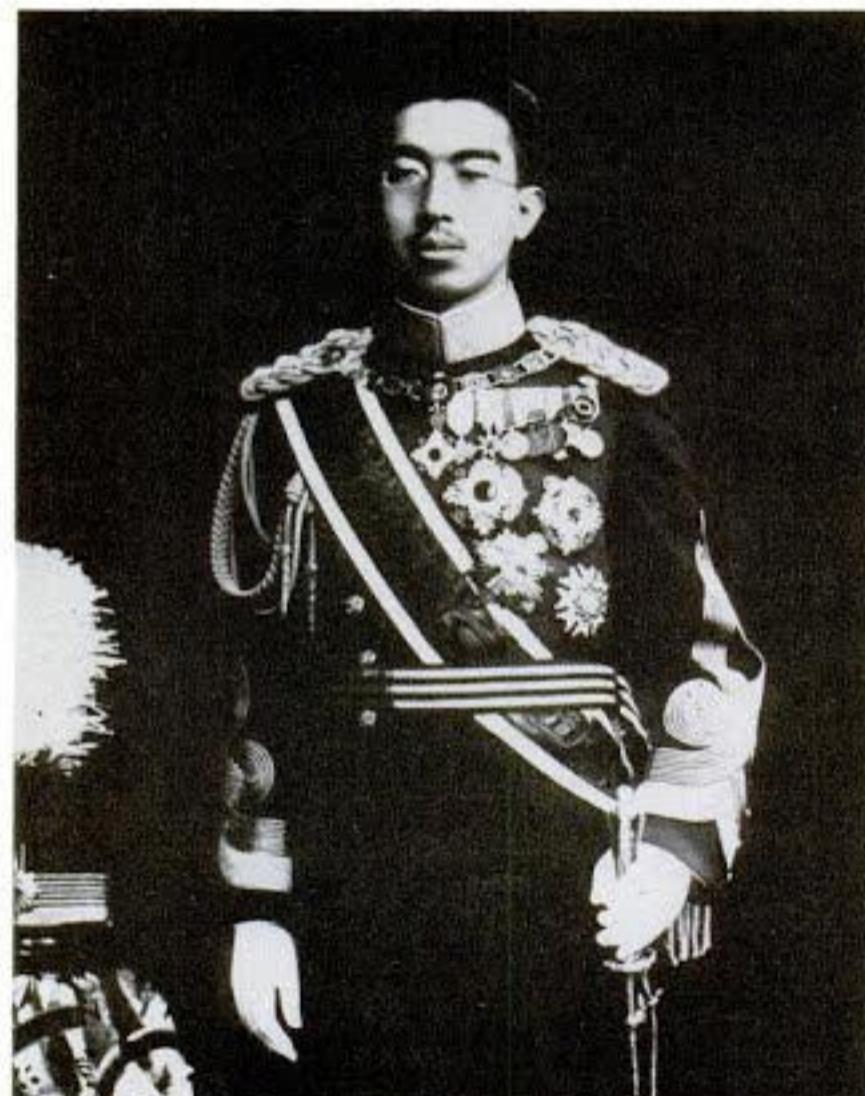
But who are the power groups in Japan? Who has the say in governmental decisions? It is not the Emperor himself. He has all the trappings of a myth but he has also a myth's weakness. He has no say. And it is certainly not the Japanese people. No other country in the world listens less to its people.

In the early days of modern Japan the clansmen who deposed the shogun and restored the Emperor had the say; but the feudal clans could not survive as power centers in a modern world. When their power lapsed, two conflicting yet mutually dependent groups of businessmen and militarists took their place. The power of these groups fluctuates continually, and the composition of the Japanese government, particularly of the Japanese cabinet, is an almost exact measure of the relative power of the two groups.

But who actually decides how much power each group shall have? The Emperor does not and the people do not. The decision is made by the opposing groups themselves. There are only a few industrialists; there are only a few top-ranking generals and admirals. They form their separate policies in their own political councils, but they settle the question of who shall run the country and who shall have the balance of power by talking to each other and by talking to the imperial satellites.

This conversation is the fulcrum of Japanese politics; its essence is compromise and its manifestation is coalition between rival groups motivated by similar nationalistic aims. A Japanese businessman will seek power to run Japan his way, not the army way, but he knows that he cannot run the Japanese army; therefore he must cooperate with the militarists. Likewise, an army officer knows that he cannot run Japanese factories; he too must cooperate. To put it positively, the balance of power between big business and the military depends at any given time on their relative value to the nationalist, expansionist aims of the country.

On the basis of conversation of this sort the Japanese overlords determine the degree to which each of the conflicting power groups can use the name of the Emperor. Much of the conversation is carried on in the cabinet, the chief organ of Japanese government, where the various ministers, acting not as individuals but as representatives of groups, try to harmonize divergent viewpoints into national policy. If the political balance fails, the cabinet falls—cabinets have fallen frequently—and the informal discussion starts all over again.



EMPEROR HIROHITO wears Japanese Field Marshal's uniform. Below his collar hangs the medal of the Grand Order of the Chrysanthemum, with chain, highest military decoration. Other medals include Order of the Rising Sun and Order of the Golden Kite.

of speech into a strict moral compulsion. Any Japanese who disobeys it by surrender automatically becomes a traitor to his Emperor and thus to his country and to his religion and to his family, and expects to be punished accordingly.

The Japanese constitution, written in 1888, established the throne as a source of power. Ever since then groups that want more power have invariably emphasized the imperial myths. But even these power groups sometimes find it difficult to approach the Emperor personally. He is insulated not only by ritual and ceremony but by various groups of personal advisers, through whom imperial matters proceed with proper Japanese dignity. He is watched, protected and guided by patriarchal palace advisers appointed by the government. These house-

a Perfect Evening

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RIGHT COMBINATION WORLD'S BEST TOBACCO



"I prefer this end of the pool, myself"

Your first sip of rich Paul Jones proves that authentic, hearty flavor is still the secret of a superb whiskey.

*Blended Whiskey. 86 Proof. 65% grain neutral spirits.
Frankfort Distillers Corporation, New York City.*



Paul Jones
FINE AMERICAN *BLENDED WHISKEY*

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IN KUNMING A STREET VENDOR SITS BESIDE HIS SPECIAL WARES: NAME BRANDS OF AMERICAN CIGARETS WHICH SELL AT 2,200 CHINESE DOLLARS (78¢ PER PACK)

CHINESE TRAGEDY

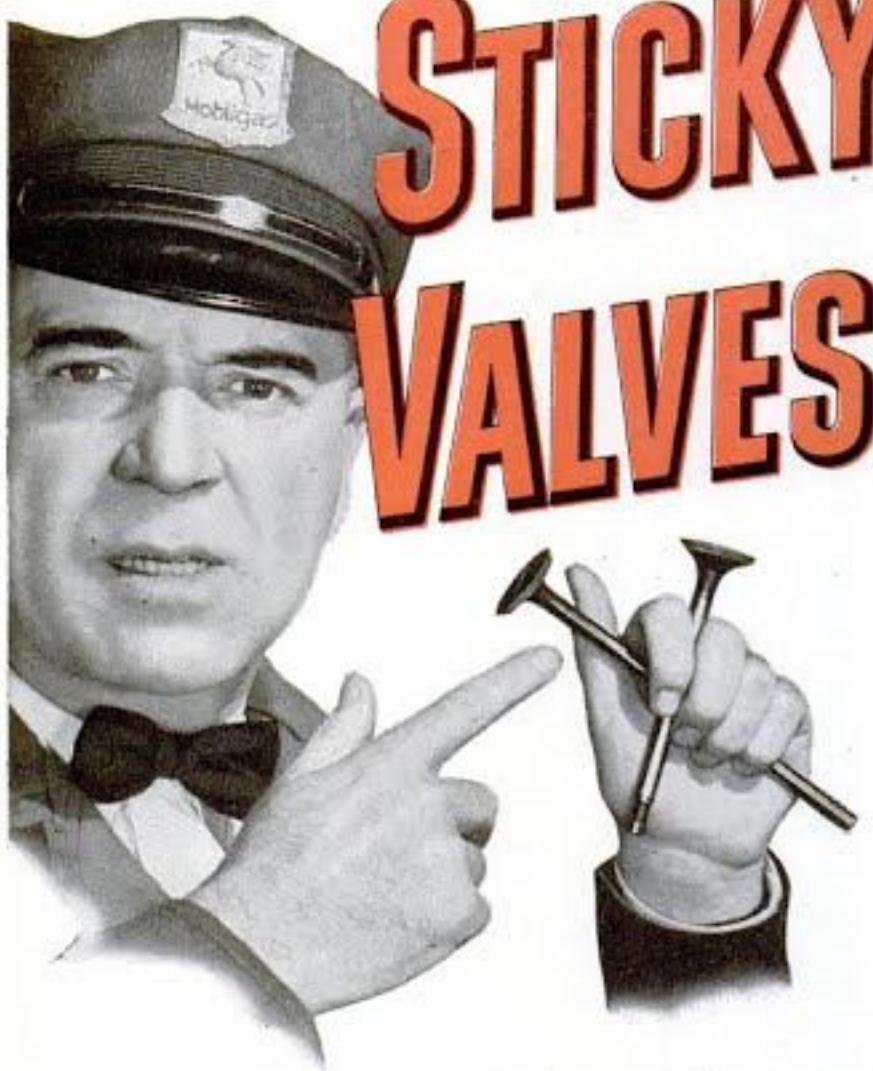
Wartime inflation brings hunger and black markets to Kunming

Inflation like death, destruction and disease is international in wartime. In long-blockaded China, at war longer than any other Allied country, inflation reached such tragic proportions that it badly hit morale and, in some places, hurt the war effort.

The Chinese city where inflation is most conspicuous is Kunming. There inflation has brought hunger and, for the coolie, the condition is desperate. To Americans the situation seems fantastic. The coolies deposit

money in banks in sackloads. Housewives shop with handbags stuffed with inch-thick wads of money. GIs use small notes to light cigars while others buy up bills to send home for wallpaper. Against orders GIs also cooperate with the black market by reselling their purchases from Army PXs at an enormous profit; then street vendors (above) hike the price and sell U.S. goods to the needy Chinese. The Chinese dollar, worth 30¢ in 1937, now actually brings about .03¢.

STUCK WITH STICKY VALVES?



Keep 'em clean—Use Mobil Upperlube Regularly!

1. FIGHTS GUM, CARBON:

Mobil Upperlube enters upper cylinders in vapor form as you drive. Added to your gasoline, its special solvent action helps soften the gum that binds carbon to rings and valves. Gives you a cleaner, smoother motor.

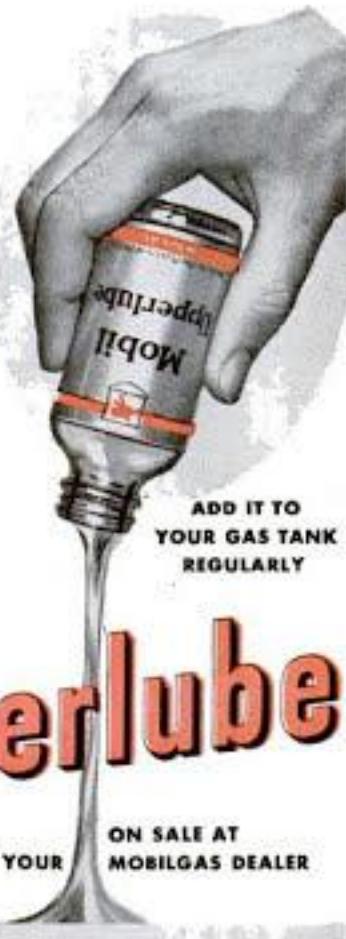
2. AVOIDS "HIDDEN WEAR":

Mobil Upperlube guards against scuffing and wear at motor's "hot spots." Puts protective film on hard-to-reach upper cylinder walls.

3. GUARDS AGAINST INTERNAL CORROSION:

Mobil Upperlube's protective film wards off corroding moisture which forms when motor cools. Just add it to the gas tank at rate of only 4 ounces to every 10 gallons.

P.S.—To restore "new car pep" quickly, try a Mobil Upperlube Tonic Treatment. Ask your Mobilgas dealer for one today.



Mobil Upperlube



ON SALE AT
YOUR MOBILGAS DEALER

Also: Mobilgloss, Mobilwax,
Mobil Handy Oil, Mobil Hydrotone, Mobil Stop-Leak,
Mobil Radiator Flush, Mobil Window Spray

"INFORMATION PLEASE" returns Sept. 10. Until then, hear Rose Stevens—Mondays 9:30 P.M., E.W.T., NBC

Chinese Tragedy CONTINUED



Black market outlet in Kunming's banking district, called GI Street, sells U.S. hydraulic jacks, airplane parts, K-rations, pens, GI clothing and other contraband.



Bag of bundled money is loaded onto a ricksha by a Chinese coolie who has made a withdrawal from his bank and must transport the dollars to a merchant's store.



Bank clerks count and bundle the loose bills into neat, tied stacks of 10,000 Chinese dollars (\$3.60). Loose money was formerly stored in steel safes but they overflowed.

CONTINUED ON PAGE 44



Flowers from a fox-hole

I knew you'd remember.
I don't know how you did it... out there...
dug into the dirt.
But you did.
Your flowers came on our anniversary.
Just as they've come on every anniversary.
In the grayness of our waiting they brought
us together.... It's you who have always put
color into my life.
You must miss color too... out there... dug
into the dirt.
But tomorrow, when I have you back—I'll
make up to you for today's drabness.
We'll have color everywhere.
In our garden, in our home, in our clothes.
I'll even get boots for the stormy days... in
colors that sing in the rain!

and tomorrow—



*"U.S." Gaytees
in heroic colors*

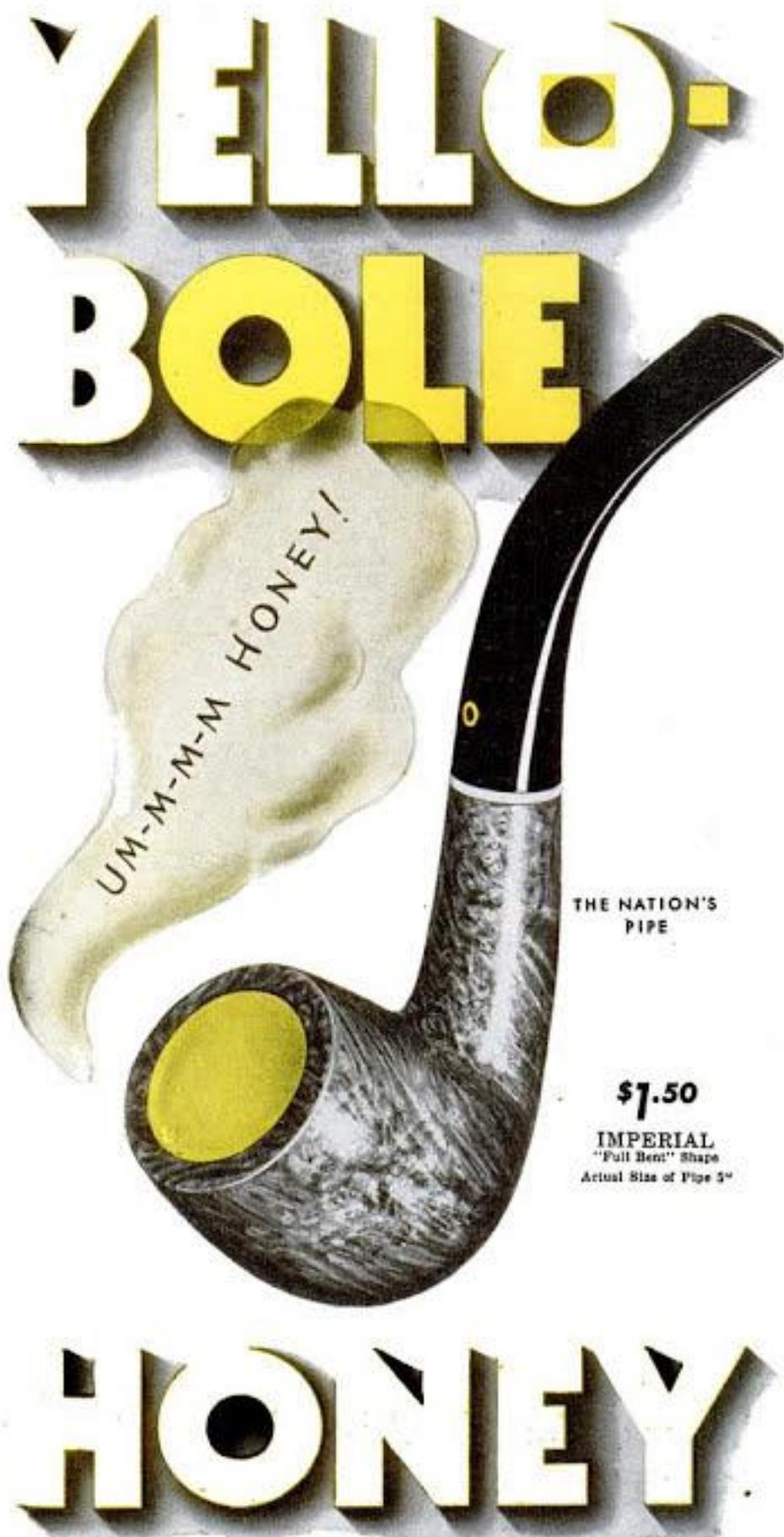
We have to see that *he* has the rubber equipment he needs,
before we can give *you* Gaytees again.
Gaytees—health protection in the form of a fashion—
color at your feet... even on stormy days.

SERVING THROUGH SCIENCE



UNITED STATES RUBBER COMPANY

1230 SIXTH AVENUE • ROCKEFELLER CENTER • NEW YORK 20, N. Y.



THE NATION'S
PIPE

\$1.50

IMPERIAL
"Full Bent" Shape
Actual Size of Pipe 5"

HONEY

cures your smoke

Yello-Bole Pipes are treated with real bee's honey. You can fill a new Yello-Bole with tobacco, light it, and enjoy a mild, pleasant, agreeable smoke, right away—then and there. There's no "breaking-in," as with some pipes. No period of "getting the newness out of it." Yello-Boles start sweet, and stay sweet, and agreeable. The honey keeps curing the smoke. If you can't get one immediately, it's because men at war are getting theirs—but your dealer is being supplied with his share, as available.

YELLO-BOLE IMPERIAL \$1.50



YELLO-BOLE PREMIER \$2.50



YELLO-BOLE STANDARD \$1

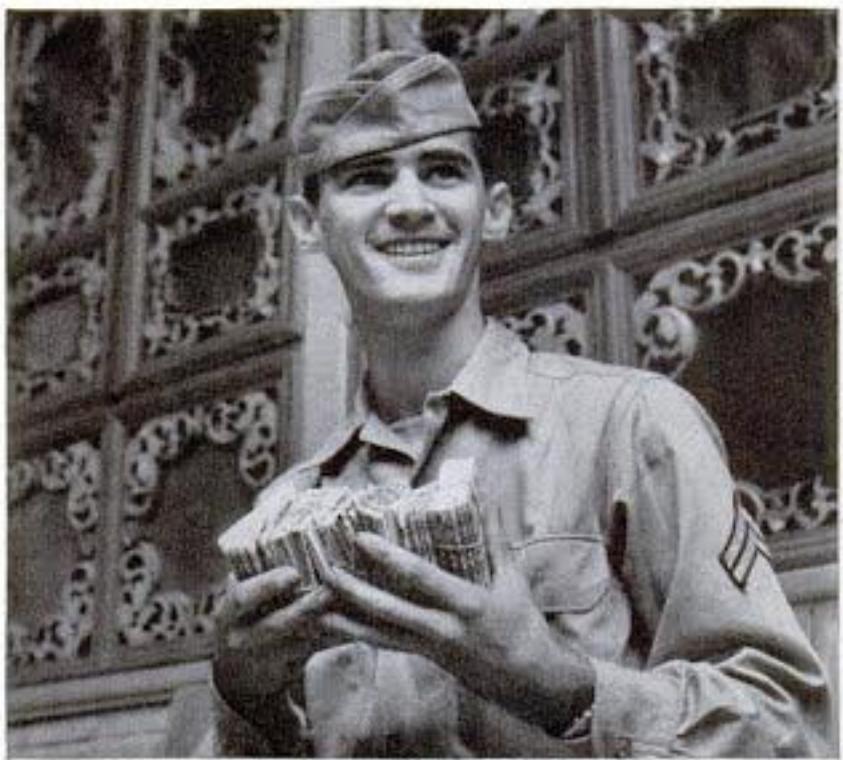


Take care of your pipe—
Bee Pipe-Sweetener, 25¢

Chinese Tragedy CONTINUED



Coolies are paid off by U.S. finance officer. Average coolie now makes about 2,000 Chinese dollars (70¢) a day compared to prewar daily wage of 6 Chinese dollars (\$1.80).



Corporal Larry Andrews has stacked in his hands 56,000 Chinese dollars, worth about 20 American dollars. To avoid confusion GIs pay for PX supplies in U.S. coin.



Alarm clock in Kunming shop is inspected by a GI who finds it costs 100,000 Chinese dollars (89¢). A quart of Canadian Club whisky sells for the same amount.



Don't try to tell this doctor the job's nearly done...

PROBABLY no one realizes better than a medical officer the enormous magnitude of the *medical war* still to be fought . . .

He has seen us win victory after victory—and harvest more and more dying and wounded to care for. He knows that the more victories we win and the greater those victories, the more dying and wounded there will be to care for. He knows that in this caring doctors, too, are dying and will die—doctors who must be replaced.

These are reasons why our present serious civilian doctor shortage will be a continuing one, a long one. There are other reasons. Bringing back troops from all over the world will be a long, difficult task—and their doctors will be among the last to be released. Many doctors will stay abroad to prevent epidemics that might eventually come to us. Doctors who do get back will have much of their time occupied in caring for casualties of the world's greatest war.

So help your doctor save his time. The very best way to save his time is to make use of his services the minute trouble arises. Never indulge in

self-diagnosis. See your doctor early, in time for him to head off more serious trouble. And you can help him further by doing these three things:

GO TO HIM—whenever you are able. House visits take time when someone else may need him urgently.

KEEP YOUR APPOINTMENT promptly; make it at his convenience so that he can plan his crowded hours better.

FOLLOW HIS ADVICE TO THE LETTER—so that your trouble doesn't drag on, get complicated, or need extra attention.

One of a series of messages published as a public service by Wyeth Incorporated, Philadelphia . . . relied upon by your physician and druggist for pharmaceuticals, nutritional products, and biologicals—including penicillin and blood plasma.

Wyeth

HELP YOUR DOCTOR SAVE HIS TIME!

IMAGINATION IS THE DIRECTING FORCE AT CHRYSLER

IMAGINATION AND PERFORMANCE

HOW THEY BENEFIT YOU—IN WAR—IN PEACE



Imagination asks the questions — and finds the answers, too. It set our engineers wondering how Army vehicles could be built to run literally under water.

In our laboratories, imagination developed special water-proofing for electrical parts, carburetors, air intakes and exhausts — so cars or trucks can roll dependably through water, windshield deep!

CHRYSLER CORPORATION

YOU'LL ENJOY "THE MUSIC OF MORTON GOULD" THURSDAYS, CBS, 9 P.M., EWT



You're looking at a military truck that can either hightail down a highway or wade through five feet of swirling water.

It is dramatic proof that trucks and cars can be equipped to plow unhesitatingly through streams and floods where only amphibious vehicles could go before.

And it's another example of how *imagination* works out ideas at Chrysler Corporation.

Practical imagination has gone to work to engineer the production of tanks, guns, ammunition,

KEEP ON BUYING WAR BONDS!

aircraft engines, rockets and the many other war products our plants turn out in quantity.

In peace, inventive *imagination* enabled us to pioneer many car improvements — the combination of Fluid Drive and Floating Power, for example, that brings you both smooth performance and economical up-keep.

Imagination is the directing force at Chrysler Corporation . . . it will again find ways to add extra value and usefulness to the cars and trucks we soon will be making for you.

Plymouth

DODGE

DeSoto

CHRYSLER

AIRTEMP
Heating, Cooling, Refrigeration

CHRYSLER
Marine and Industrial Engines

OILITE
Powdered Metal Products



"CAPTAIN EDDIE" BEGINS WHEN AIRPLANE CARRYING RICKENBACKER (TOP, WITH HAT) AND CREW IS FORCED DOWN BY LACK OF FUEL SOMEWHERE IN PACIFIC

MOVIE OF THE WEEK:

Captain Eddie

Nostalgia and heroics are blended
in Rickenbacker's screen biography

The biggest human-interest story of 1942 broke when Captain Eddie Rickenbacker's plane, on a special mission to the South Pacific, was lost at sea and, after three weeks' search, the survivors were found. With this as a starting point, 20th Century-Fox has constructed *Captain Eddie*, a quiet movie biography of America's most durable hero. It begins when the plane crashes and then, in a series of flashbacks, tells its story of the Midwestern boy who became a great racing driver, gilt-edged war hero and airlines tycoon.

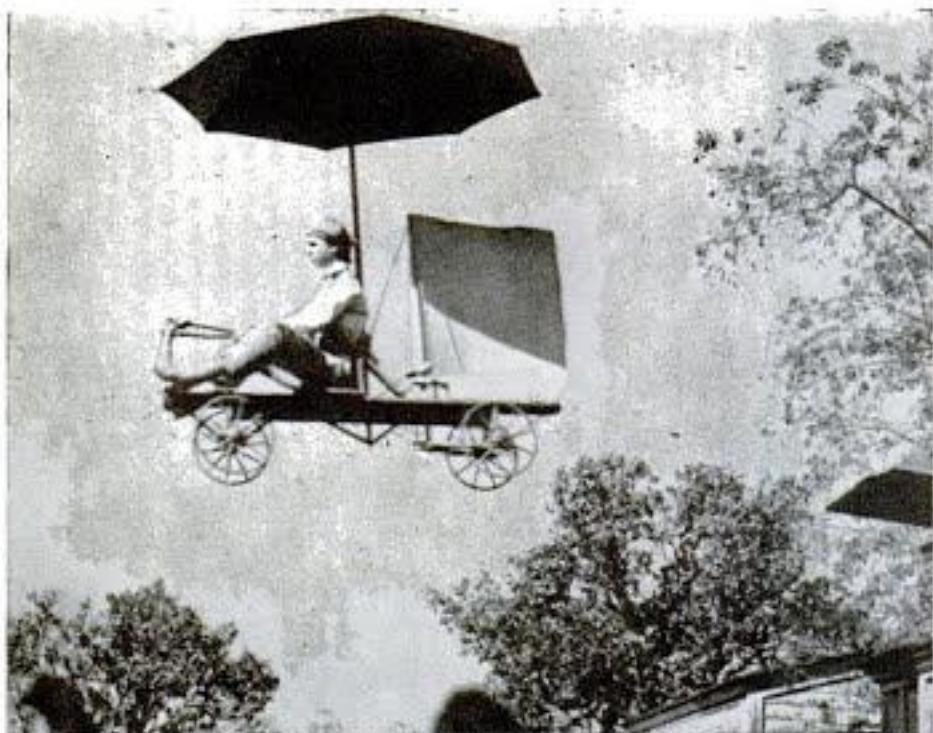
These achievements receive scant attention in the

picture, which is largely the story of a boy growing up during the birth pangs of the internal combustion engine. Great emphasis is placed on Captain Eddie's love for machines, especially during the early 1900s when he was building contraptions out of junk and contending with the last stages of horse-and-buggydom. There is a pleasant, inaccurate version of his courtship and many nostalgic reminders of life in Columbus, Ohio—the beefy German fishmonger, the beer wagons, the refined dancing academy—in scenes set with the rag-time tunes of the early automobile age.

DURING 21 DAYS ADRIFT RICKENBACKER (FRED MACMURRAY) FISHES FOR FOOD, ENCOURAGES THE DESPONDENT CREW BY SAYING HE IS NOT YET READY TO DIE



"Captain Eddie" CONTINUED



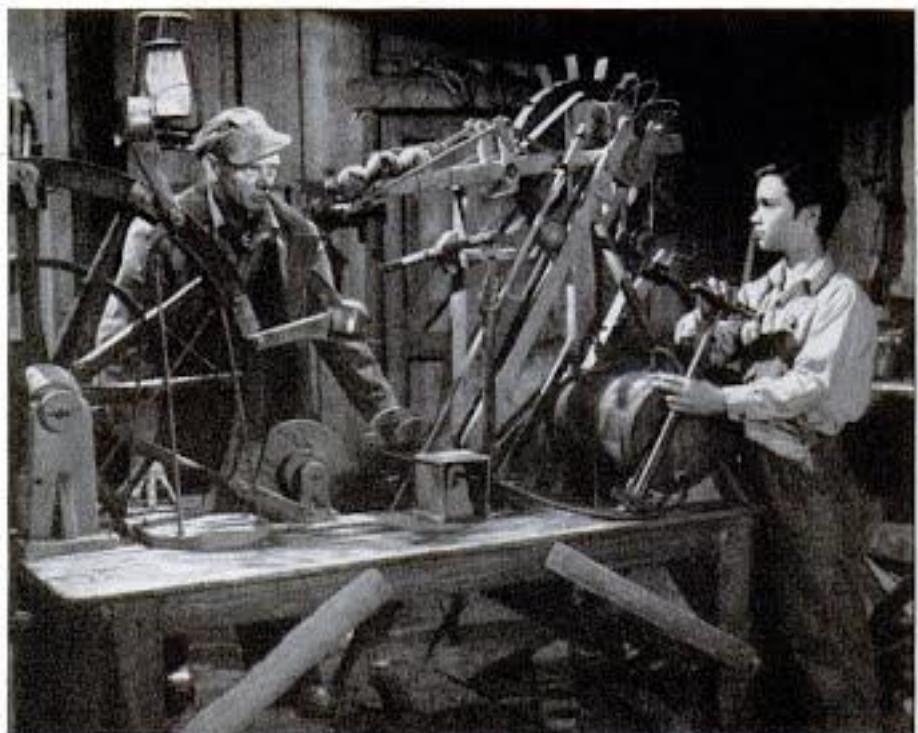
Homemade flying machine is the first one flown by young Eddie Rickenbacker (Daryl Hickman). He manufactures it from a pushcart's umbrella, a set of baby-carriage wheels. Taking off from a Columbus, Ohio rooftop, he flutters across an alley and cracks up in a haystack.



Primitive airplane attracts young Eddie and he squanders \$5, two thirds of his first week's pay in an auto factory, for a short flight at Columbus Driving Park. Eddie is nearly killed when plane crashes. His mother makes him swear on the Bible never to go up in one again.



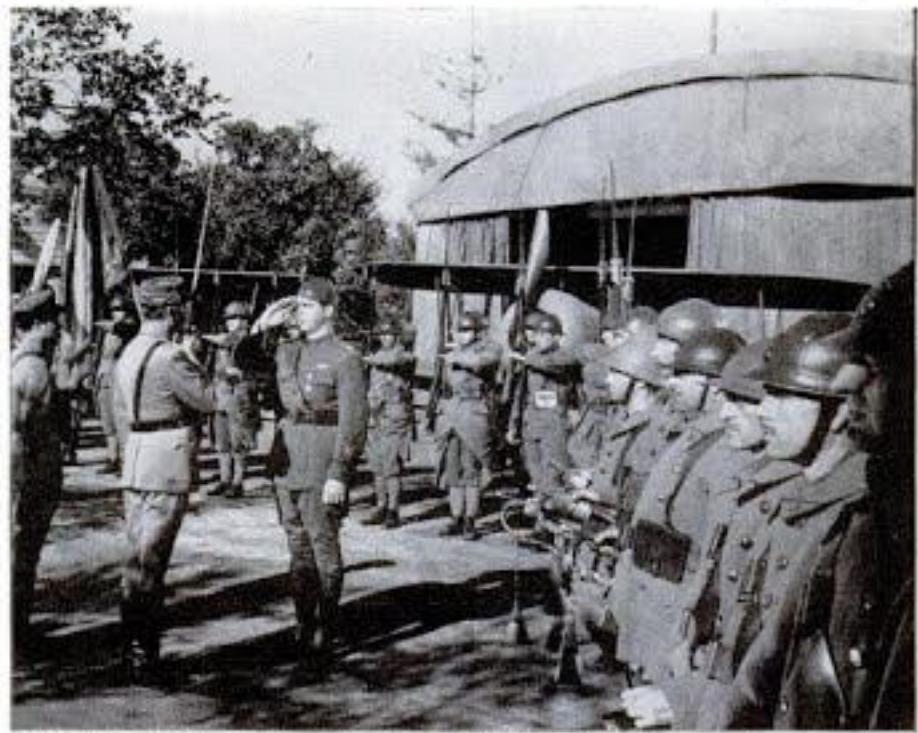
Racing cars with death-defying speed of 60 mph make Eddie Rickenbacker a national figure as he barnstorms around the country. On the strength of his reputation, in 1917 he is appointed General Pershing's personal driver in France. Fiancée Adelaide promises to wait for him.



Jimerack steam engine runs all right but does nothing useful. Eddie's father (Charles Bickford), a bridge builder, encourages his interest in machines. When a pile driver kills father, Eddie's sorrowing mother warns him that machines are "against nature and against God."



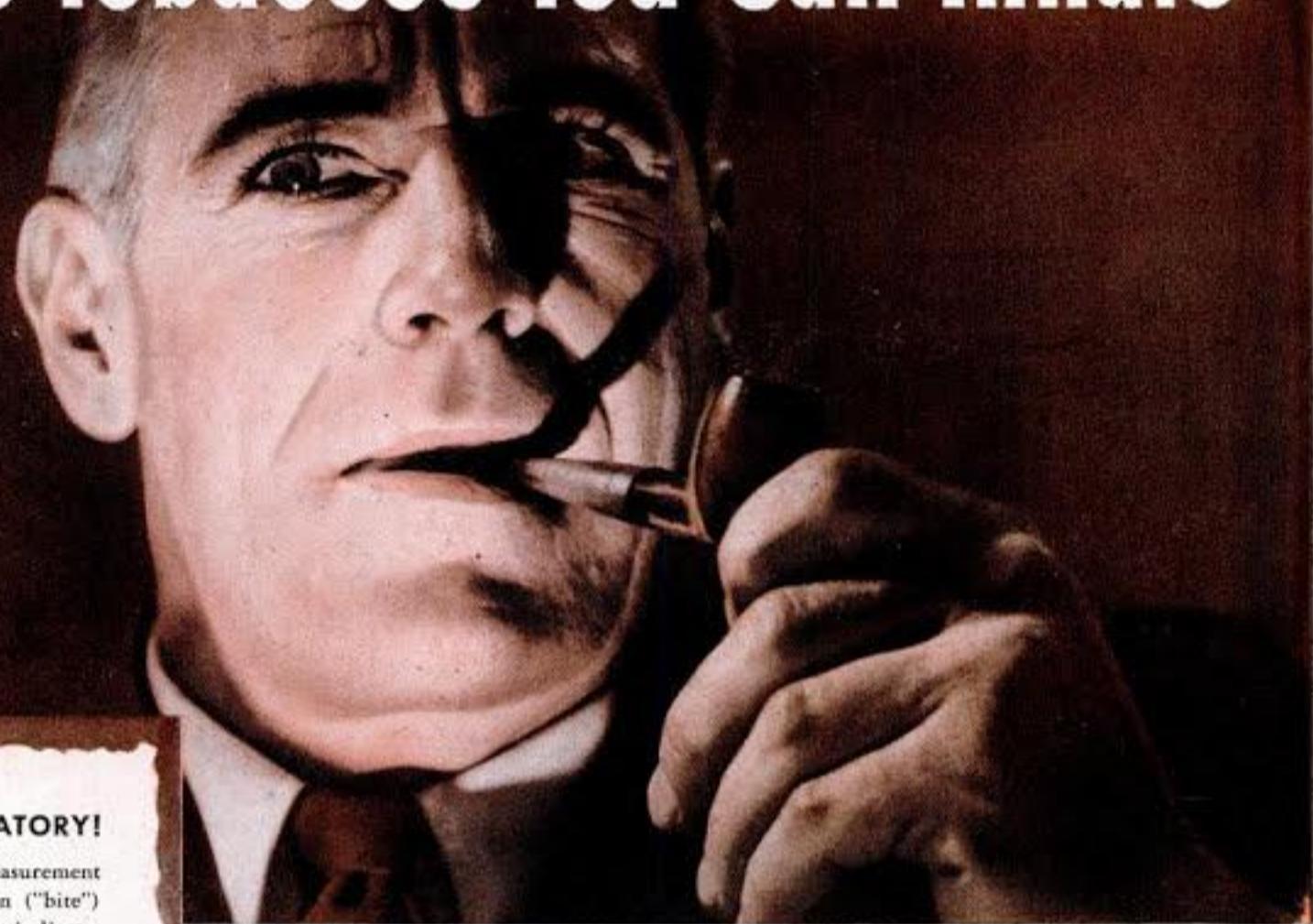
Automobiles become his life. He sells them, tinkers with them, uses one when courting future wife, Adelaide Frost (Lynn Bari). After dancing *Missouri Waltz* at a party, he unhitches his boyfriend's horse and takes Adelaide home. Car breaks down and they are very late.



Airplanes and Rickenbacker finally unite as Eddie's mother releases him from promise not to fly them and he becomes U. S. Ace of Aces, with 26 planes, a flock of medals to his credit. No World War II hero has yet come close to filling Rickenbacker's shoes as a public idol.

THE FLAVOR'S IN...THE BITE IS OUT—

Two Pipe Tobaccos You Can Inhale



PROVED IN THE LABORATORY!



Laboratory measurement of the irritation ("bite") in the smoke, indicates that the average of six other leading, popular pipe tobaccos is over *three times as irritating* as

REVELATION! Since BOND STREET is produced by the same Philip Morris method, you'll find this goes for BOND STREET too!

NOW PROVE IT IN YOUR PIPE

Try BOND STREET or REVELATION in your pipe. You'll find both extra good . . . smooth, cool-smoking—thanks to a Philip Morris advance in preparing pipe tobaccos.

BOND STREET TOBACCO

A Genuine and very different Aromatic Mixture! Contains a rare aromatic tobacco never before used in popular-price blends . . . wonderful flavor and aroma, even the ladies approve. Smooth, cool and clean-burning.

ONLY
15¢

PHILIP MORRIS presents
Two Grand Pipe Mixtures—So Mild and Gentle—they're
Winning Thousands who Never Smoked Pipes Before!



Here's a tip to smokers! Do as thousands are doing in this shortage . . . try BOND STREET or REVELATION in a pipe. They're the *pipe tobaccos you can inhale, just like cigarettes*. Yes, thousands who

never smoked pipes before . . . are stretching out their limited cigarette supplies . . . with mild, gentle, cool-smoking BOND STREET or REVELATION. Try these two grand pipe mixtures—made by Philip Morris—the flavor's *in . . . the bite is out!*

PHILIP MORRIS & CO.

Dedicated to the Production of Fine Tobacco Products

REVELATION TOBACCO



One of the world's most Perfectly Balanced Blends! A magnificent "flavor-blend" of five different, superb tobaccos . . . cut five different ways; smokes clean, cool and even—every puff a pleasure.

ONLY
15¢



Of course he wears a



VAN HEUSEN shirt

More and more men are getting wise to Van Heusen's grand styling, fit and comfort. Worth waiting for if your dealer's short. Sanforized, laundry tested, bear the Good Housekeeping seal. PHILLIPS-JONES CORP., N. Y. 1 • *Shirts • Ties • Pajamas • Collars • Sportswear*

"Captain Eddie" CONTINUED



In his racing car Rick was a prewar hero to thousands of American kids. A daring driver but not reckless, he had many dirt-track accidents and never was seriously hurt.

RICK IS A MOTOR-AGE ALGER HERO

One reason that *Captain Eddie* lingers so fleetingly on the hero's career is that in this cynical age the sum of its Horatio-Algeresque realities might provoke disbelief. Yet, despite his rash propensity for getting into hot water on matters of labor and politics, he remains prominent and popular, while others who were heroes in their youth have retired into obscurity. The Rickenbacker legend began when Eddie became second only to Barney Oldfield as provider of spills and thrills in dirt-track auto racing. Then came the World War and the fabulous public acclaim accorded to America's greatest ace and his "Hat-in-the-Ring" squadron. Rick capitalized on this by writing an autobiographical best seller but turned down a free house, soft jobs, movie offers in order to go off hunting jack rabbits and "forget how to hate." Afterward he went down with the Rickenbacker ("a car worthy of its name"), a good automobile but too advanced for the public. For 15 years before Pearl Harbor Rick stormed at the Army for neglecting airpower, said next war would be won in the air, lived to see his prophecy of a sneak attack fulfilled. In 1938 he became president of Eastern Airlines and built it into a large and profitable company. Now 54 and married (in 1922 to a divorcee), he has two sons, 20 and 17, lives in New York, votes Republican. Over the years Rick has stuck to his old racing motto, "Get out in front and drive like hell," and everybody still likes it.

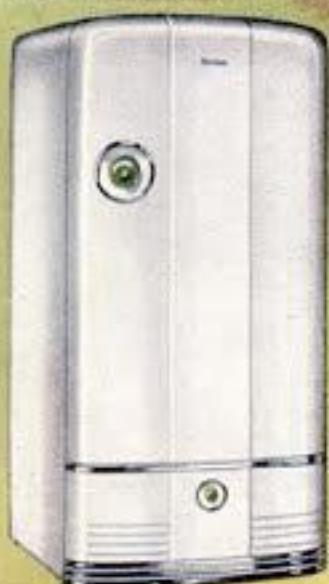


In flashy uniform Rick epitomized World War I's dashing aviators to the public.



In khaki uniform MacMurray looks less glamorous imitating a famous Rick pose.

COMING SOON AT Firestone



HERE is a preview of some of the postwar products which will soon be on sale at Firestone dealer stores and Firestone stores throughout the United States. In fact, a limited number of some items are already in stock in a few localities and more are coming as quickly as materials can be obtained.

Firestone dealer stores and Firestone stores are among the first retail outlets in America to give you new postwar models of products you have been waiting for. Yes, they are really new—not merely prewar models. And they are extra quality products which uphold the Firestone tradition of Best Today—Still Better Tomorrow.

Listen to the Voice of Firestone every Monday evening over N. B. C. network.

Copyright, 1945, The Firestone Tire & Rubber Co.

Firestone provides a full line of tires and tubes for all types of vehicles and for aircraft, Life Protector safety tubes for passenger cars.



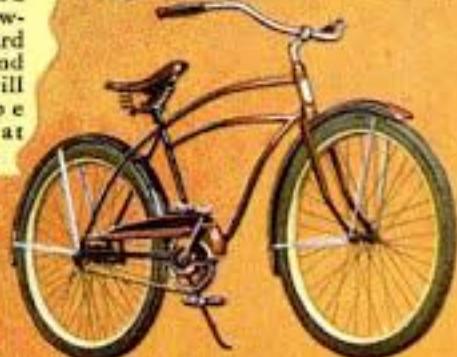
Firestone electrical products include: refrigerators, home freezers, sweepers, ranges, waffle irons, mixers, toasters, washers, roasters, radios, heaters, fans, and other useful items.



Firestone Air Chief Radios will soon be available in console, table, portable and automobile models.



Hand and power mowers, outboard motors and bicycles will soon be on sale at Firestone.





It isn't Magic—but it's Wonderful!

There's no magic at all to capturing the luscious flavors of fresh fruit . . . Orange! Lemon! Lime! Pineapple! Wild Cherry! But the wonderful part is that you can carry them all in your pocket—in a delicious, handy, Five Flavor pack of Life Savers.



PRINCESS ELIZABETH



THE ADAPTABLE ROYAL HOUSE OF ENGLAND MOLDS A QUEEN WHO MAY RULE OVER A SOCIALIST REALM

by WILLIAM W. WHITE

Princess Elizabeth Alexandra Mary Windsor, who will someday claim the allegiance of some 489,000,000 of the world's population as Elizabeth II, by the Grace of God, of Great Britain, Ireland and the British Dominions beyond the Seas, Queen, Defender of the Faith and Empress of India, spent Thursday, July 26, quietly at Windsor Castle.

Although her sceptered isle was going through the turmoil of sudden political change and her good friend Winston Churchill was being snowed under an avalanche of leftist votes, Princess Elizabeth pursued her studies in the morning, lunched with some friends and took a ride through Windsor Great Park in the afternoon. She listened to the radio reports of the election and later that evening heard from her father, King George VI, how he had seen Churchill, who had refused the Order of the Garter, and then summoned Clement Attlee to head a new government. Except for the election in which she took no part, it was a normal day in the life of Princess Elizabeth, heiress presumptive to the British throne.

But that landslide to the left may in time be of more than passing interest to the Crown, since the socialization of Britain—more after the pattern of Robert Owen than Karl Marx—may test one of the few actual powers left to a British monarch. The Crown creates peers and the peers have a power of veto that can hold up any but a finance bill in the House of Lords for as much as two years. If the Conservative peers threaten to veto the Labor Party's plans for socialization under pressure from the Conservative opposition, the Labor Party might try to pack the House of Lords with newly created peers, as has already been hinted. The Crown could refuse to create them and might bring on another general election on the sole issue of whether the Crown was right in refusing to bow to the Labor Party's demands. But this is carrying the hypothesis to its ex-



H.R.H. THE PRINCESS ELIZABETH ALEXANDRA MARY POSES FOR CECIL BEATON

treme and on Britain's election day the thoughts of a possible show of strength between the Crown and the Labor Party were probably far from Princess Elizabeth's mind. Her one recorded comment when she learned that Churchill had been defeated was "Oh, bother."

This is not to say that the events of the day were altogether lost on Elizabeth. Although she may seem to live in a royal vacuum, untroubled by thoughts good or bad, she has been educated to think very seriously while saying very little. At 19 she is already carefully coached and acutely conscious of the duties, dignities and limitations of a throne—especially the limitations. The British have whittled away at the powers invested in the Crown so diligently since the original Elizabeth said to an overpresumptive minister, "I will have here but one mistress and no master," that there is not much left. What is left is the power of creating peers, a never-used veto as head of the Privy Council and the rather dubious honor of naming a Prime Minister who has already been chosen by the British electorate.

At present, as heiress presumptive (as long as her father lives it is presumed he may have a male heir) Princess Elizabeth has no powers at all. She has no royal duties of state and no constitutional functions, takes no part whatever in the government of the United Kingdom or the British Commonwealth. She is not even a member of the Privy Council, that ancient nonelected body of advisers to the sovereign. And were she 21 she would still have no vote. Yet, in a nebulous sort of way she is indispensable to the British Empire.

When she becomes queen, she will be many things to many Englishmen. But her most vital contribution is that of a symbol of continuity. Governments may fall, parties may dissolve, but the Crown goes on forever. In that fairly certain knowledge the British find an unconscionable pleasure. It is futile to ask an



Her mother was the Duchess of York when the first baby pictures of Elizabeth were taken.



Her sister Margaret played with her on their grandfather's estate in Hertfordshire.

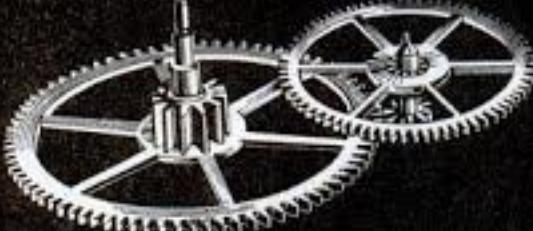


Her dog Jane, a Welsh Corgi, and her father's Labrador, Mimsy, were both kept at Windsor.



Her training has included wearing overalls and changing auto wheels as ATS subaltern.

FAMED FOR Accuracy



DISTINGUISHED FOR Beauty



Since 1791 Girard-Perregaux has enjoyed a world-wide reputation for making fine watches... beautifully styled... traditionally accurate.

Today, when correct time is so vital, your choice of a Girard-Perregaux assures you of a timepiece with a distinguished heritage.

Girard-Perregaux watches are featured by selected jewelers... priced from Forty Dollars... To know more about fine watches write for free booklet L-8 "The Flight of Time".

GIRARD-PERREGAUX
Fine Watches since 1791

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In Canada:
Dominion Square Building, Montreal




At 16, Elizabeth reviews her regiment, the Grenadier Guards, in a birthday parade. They gave her the jeweled regimental badge which she wears in portrait on page 53.

PRINCESS ELIZABETH CONTINUED

Englishman why he will stand for two hours in the rain to watch the royal party drive by. He just does and feels better for having done it. The Crown remains one of the few expenses the British bear without grumbling.

So far, Elizabeth has shown every prospect of living up to a prediction made recently by one of Britain's elder statesmen: "She has intelligence, personality and charm. She will be a good queen. She may even be a great one." Good queen or great, she will be an attractive one. Mannequin height (5 feet 6 1/4 inches), Elizabeth has inherited from her Hanoverian antecedents an ample figure, a lovely rose-and-cream complexion, good white teeth and a sturdy constitution. Unfortunately she is not photogenic because her chief attraction lies in her coloring. Her regal bearing, which reminds old-timers of her grandmother, Queen Mary, helps offset her clothing taste. Unlike most girls of 19 she is not clothes-conscious and often fails to blend her colors well, sometimes carrying a green purse with a blue costume. She often wears clothes that actively clash with the queen's carefully chosen, if rather severe, pastel-colored ensembles. British clothes designers sighed with relief when she appeared recently in a becoming wide-brimmed summer hat. She goes now to Norman Hartnell and has just purchased her second mink coat.

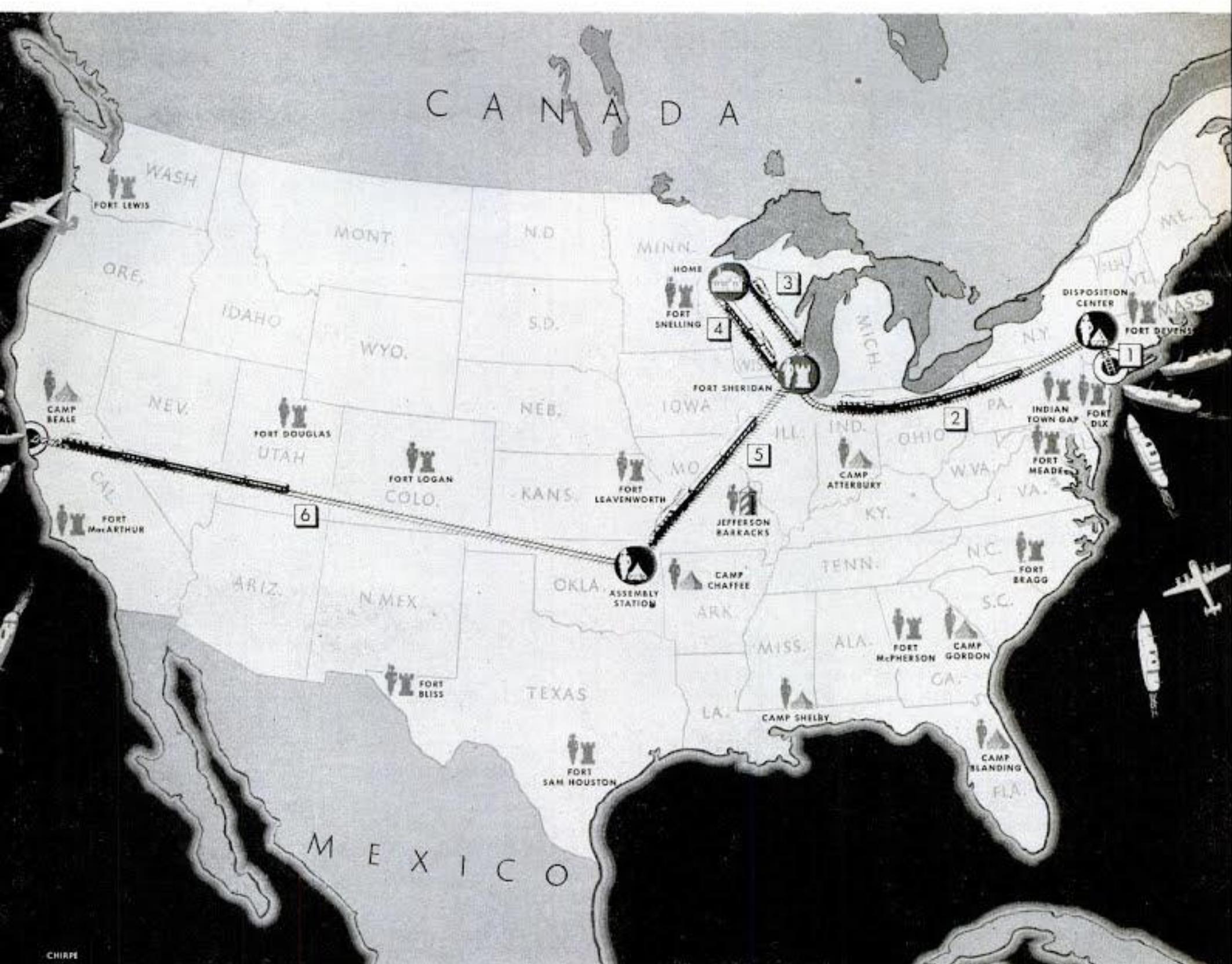
A firm-minded princess

Less lighthearted than her attractive 15-year-old sister, Margaret Rose, whose superb mimicry of visiting dignitaries has more than once caused gales of laughter at the royal dinner table, Princess Elizabeth has already shown other traits which indicate, if nothing else, she has a mind of her own. A year ago when she became due, like her subjects-to-be, for national service, the King ruled after long deliberations with his councilors that her training as a princess outweighed the nation's increasing manpower problems and that "Betts" should not join any of the women's auxiliaries, nor work in a factory. But Betts had other ideas. It was not surprising that not long afterward the Palace made a straight-faced announcement that the King "had been pleased to grant an honorary commission as second subaltern in the ATS to Her Royal Highness the Princess Elizabeth."

Elizabeth, though she had never been allowed to ride in a London bus or taxi, passed her driving course in two days less than the prescribed time, after attending lectures, doing her stint at map-reading and getting her hands thoroughly greasy dismantling en-

CONTINUED ON PAGE 56

Here's where your soldier goes when he comes home from Europe



THERE ARE 22 personnel reception stations in the United States. A returning soldier is sent to the one nearest his home. If he is to be released from service, this

is where he gets his discharge. If he is to stay in service, this is where he starts his furlough home and reports back when it is over.

Here's how your soldier goes across America

The little black trains on the map above show the trips the typical returning soldier takes if he is going "on to Tokyo."

First, there is the short trip [1] from the port at which he landed to a nearby disposition center. Here, he is grouped with other men from the same part of the country and sent [2] to the reception station nearest his home.

Now, his furlough starts and his next trip

[3] is home. Within approximately 30 days, he travels back to the reception station [4], then on [5] to an assembly station for supplemental training.

Finally, he goes [6] to an embarkation port. It takes at least 6 trips by train to get the average soldier from the transport he gets off to the transport he gets on.

That's why the military load on trains for the next few months will be greater than

at any time since we have been at war.

And, since most troops making long trips under orders travel in Pullman comfort, you can't count on getting the Pullman space you want exactly when you want it.

But you can count on this: when you do go Pullman, you go *the world's safest, most comfortable way of getting there fast*.

That will be just as true tomorrow as it is today!

PULLMAN

For more than 80 years, the greatest name in passenger transportation



Who said "imported"?
... this is AMERICAN

The story of Pocahontas and how she saved the life of John Smith is American folklore. Concerning the romance that followed, you will never see mentioned how, as the stone axe was about to fall, she appealed for John Smith's life by holding aloft a treasured bottle of native wine, surprisingly like G & D American Vermouth . . . Whether her father, chief Powhatan, was annoyed to see his private stock raided, or whether the executioner actually got the wine, we shall never know—but John Smith was saved . . . The goodness of a Martini made with G & D Vermouth is not only folklore, it is a fact you can check up any day. How's for mixing one right now?



AMERICAN
VERMOUTH

ESTABLISHED 1927



GAMBARELLI & DAVITTO • NEW YORK
DIVISION OF ITALIAN SWISS COLONY



Eligible consort, Earl of Euston, is on staff of Viscount Wavell, Viceroy of India.



Another eligible, Duke of Rutland, heads ancient Leicestershire fox-hunting family.

PRINCESS ELIZABETH CONTINUED

gines. She did not sleep at the camp but motored each night to Windsor Castle, showing up the next morning at 9 o'clock. Although her three "team mates" in the school were hand-picked, the future queen for the first time got an intimate glimpse of how the other half lives and she got a reverse-English view of a royal visit. Said Princess Elizabeth, "I never knew there was quite so much advance preparation. I'll know another time," as she helped clean the camp for an inspection by the King and Queen. When they left in their red and black Daimler she said, "It seems so strange to watch them drive away," and privately added the fervent hope that old Hawes, her father's chauffeur, might "break down" for the first time so she could give the old folks a lift home.

Most of the students in this ATS driving course finish their lesson by driving to London for the experience. It was ruled that Elizabeth should not, since the risks of a smash involving the heiress presumptive would be too great. Elizabeth, while the wheels of government were churning out that ponderous decision, was driving a camouflaged army vehicle up from the country. She arrived at the Palace after making two complete circuits of Piccadilly Circus in the rush hour and going out of her way along Oxford Street "to get in as much traffic as I could."

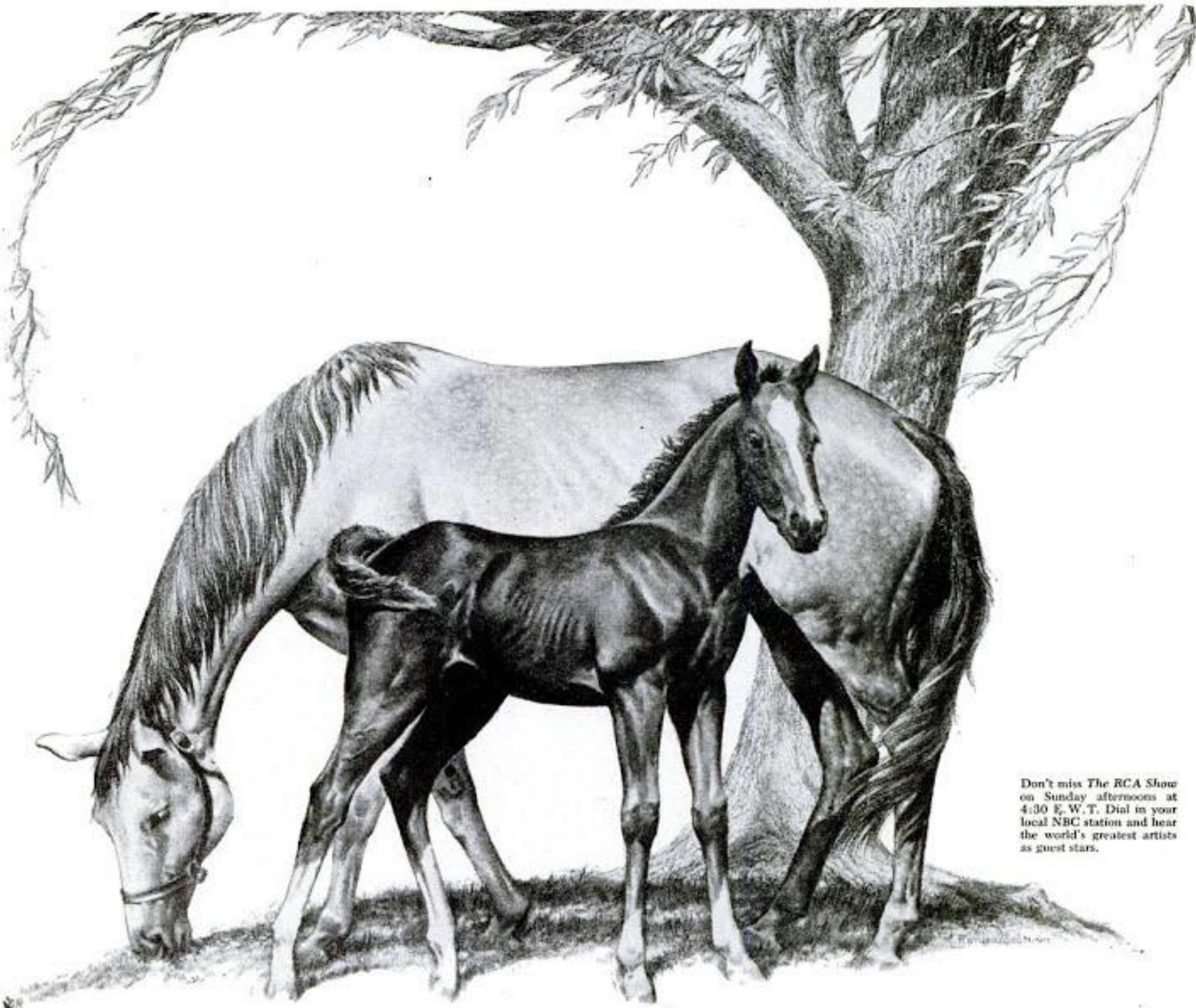
Who will be her consort?

When Elizabeth embarks on a venture it completely dominates her life. Thus, while she was at the driving school the royal dinner-table conversation was centered around spark plugs, engine performance and tire-changing. Currently the major topic of conversation—as far as Elizabeth can guide it—is horses. She hopes to have her own stable in a year or so and race against her father.

She and her mother are often found in the Queen's bedroom, knitting for the troops and probably discussing what every other mother and daughter discuss in England nowadays—food, clothes and young gentlemen. On the latter subject there is a dearth of information. At dances in Mayfair private houses, which she frequently attends accompanied by her lone lady in waiting—and from which she has been known to return as late as 3 a.m.—she dances with many different young gallants and favors no one in particular. Despite that and because the amours of a princess are always of some interest, the names of several young peers keep recurring constantly. Handsome, blond, 29-year-old Lord Wyfold, the young Earl of Euston or the good-looking Duke of Rutland are the usual three. While neither of her parents would ever consent to a marriage of convenience, Elizabeth is bound by the provisions of the Royal Succession Act to marry only with the consent of her father in council and not to marry outside the Protestant faith. If and when she marries, her husband, on her accession to the throne, would not be king but prince consort, like Victoria's Albert of Saxe-Coburg. The number of eligibles who would care for this sort of subordinate role is problematical.

One of the King's greatest uncertainties at the time of the abdication of Edward VIII was how it would affect his daughter's upbringing. Since she had to be introduced to her future subjects, it was done as painlessly for her as possible. Her first official public tour with her parents was in Wales. Instead of making her appearance in the stately setting of an evening Court at the Palace the Princess made her debut in the orange glow of furnace fires in a

CONTINUED ON PAGE 58



Don't miss *The RCA Show* on Sunday afternoons at 4:30 E.W.T. Dial in your local NBC station and hear the world's greatest artists as guest stars.

There's something in heredity . . .

IT might make a good movie to have the horse that was taken off a milk wagon win the Kentucky Derby . . . But it just doesn't happen that way! Champions are the result of applying known principles of selection to established blood lines running back many years. Heredity counts!

Your first postwar radio set—whatever its name—will also be the result of the background and experience of its makers. Can you think of any better engineering background in the radio field

than that of the Radio Corporation of America?—Can you think of any name in the field of recorded music equal to Victor?

Can you, just for a moment, imagine what the combination of those two names will mean to you in radio satisfaction as soon as sets are available?

THE NEW RCA VICTOR SETS will include many great improvements—the result of experience gained in building 350 different types of war equipment, *none*



of it ever manufactured by anyone before . . . FM and television, of course. Radios and the famous trade-marked Victrola will range from excellent low-priced table models to fine automatic consoles. See your RCA Victor dealer before you buy.



RCA VICTOR

RADIO CORPORATION OF AMERICA

IT'S *ARALAC!

Young fry fashion: a frock of Windsor's Aradown...cotton and ARALAC Tattersal check...

wearable and washable...a wonderful fabric!



King and heir presumptive go over papers but dispatch boxes on table are closed to her. Although her education is a matter of state policy, she has no political duties.

PRINCESS ELIZABETH CONTINUED

Welsh tin plate mill. Since then she has made many appearances with her family and by herself. She still has not achieved the full technique of sitting still at long meetings and fidgets with her fingers. She has, so far, made two radio talks (her voice is identical with her mother's) and a dozen speeches, and has never fluffed once. She is inclined to be nervous at first—shown by heightened color in her cheeks—but she quickly finds her ease and prides herself on never looking as though she is reading her notes. Her speeches are prepared for her by her current lady in waiting, 25-year-old Mrs. Vicary Gibbs, a war widow, and revised by Elizabeth herself. Her most important engagement so far was the launching of Britain's newest and greatest battleship, H.M.S. *Vanguard*, on the Clyde last November. Although it was a cold, gray day and she confessed to a nearby official, "I'm too nervous to feel the cold," she went through the ceremony without a flaw. Only later did she show she was more woman than princess. She had been presented with a beautiful diamond brooch and while the chairman was laboring through a ponderous speech of welcome, Elizabeth sat quietly turning the Rose-of-England shaped brooch over and over in her hands, admiring it for all she was worth.

She is coached by "Grandmamma England"

Queens, like good first basemen, are made, not born. Elizabeth's training has been arduous. "Grandmamma England"—Queen Mary—seems to have had a firm hand with young Elizabeth, perhaps because that truly royal person had, better than any other member of the House of Windsor, the specifications for a queen. And she got in return more respect from little Betts than from her other grandchildren. The two Lascelles boys, Gerald and George, when very young, had a terrifying habit of rushing into a room and attacking Queen Mary's ankles. She was often obliged to put up a spirited defense with her famous parasol. Happily, Elizabeth was less boisterous.

Queen Mary taught the child the art of talking intelligently to the various visitors at Court, and young Elizabeth early learned her most difficult lesson—that she must appear to be enjoying the talk, no matter how dull it actually was. So that she might be well-informed or curious about many subjects, her education was truly catholic. Accompanied by her grandmother, little Elizabeth would trot through the Victoria and Albert Museum, the Royal Mint, the Bank of England, the science museum in South Kensington, the Tower of London, Westminster Abbey and the National Gallery. There the pace halted as they spent hours together studying the pictures, particularly those depicting relatives in historic scenes. Those were legion since the House of Windsor and its Hanoverian

CONTINUED ON PAGE 60

She's Engaged!

SHE'S LOVELY! SHE USES POND'S!

an Kansas
ansas Girl
agement of
TY JANE CANNON
to
H. W. SMITH
has been engaged
to



HER RING—
a large and two
small diamonds

• Betty Jane Cannon has unforgettable beauty that wings its way straight to your heart—as it did to the heart of her officer fiancé, now overseas.

Her complexion is porcelain-like in its smoothness, with a dewy, young-soft look—the look so many Pond's engaged girls seem to have!

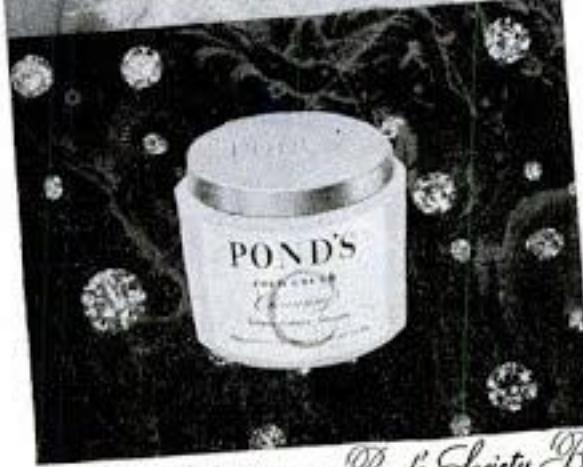
"It's not just luck my skin is nice," Betty Jane says. "I don't give much time to it—but I do give it regular creamings with Pond's Cold Cream. I love Pond's—and I think it does lots for me."

This is how she uses Pond's:

She smooths plenty of fragrant Pond's Cold Cream over her face—throat too—patting briskly to help soften and release dirt and make-up. Tissues off.

She rinses with more Pond's—swirling her cream-tipped fingers all around her face. Tissues again. "It feels so good and it does such an extra-special cleansing, softening job," she says.

Use your Pond's Cold Cream this two-time way—every night, every morning, and for in-between clean-ups! It's no accident so many more women and girls use Pond's than any other face cream at any price. Ask for a big luxury jar. It has a grand wide top, that lets you dip in with both hands at once!



"POND'S IS MY CREAM," Betty Jane Cannon says. She has one of the prettiest complexions you've ever seen—adorably soft and smooth!

(far right) **SIGNING UP NURSES**—Betty Jane helped at a Nurse Recruiting Information Center during the recent drive for nurses, answering questions, telling girls and women how and where they could give the greatest service. There are many nursing needs these days . . . Registered Nurses, Cadet Nurses, Nurse's Aides, Home Nursing. Ask at your local hospital what you can best do.



A few of the many Pond's Society Beauties: Mrs. Mabel McCormick · Princess Xenia · Mrs. Victor L. Drexel

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"LAY OFF! I'M BUYING THIS HAT!"

War Conscience: Oh, no you're not, girlie. And why? Because I won't let you! I'm your Wartime Conscience and I'm gonna make you toss your extra dollars into War Bonds—not into things you don't need!

Woman: But I do need this hat—I'm going to a very swank tea tomorrow! And besides, Miss Butinsky, I'll have you know I buy a Bond in every Drive!

Woman: But I do need this hat—I'm going to a very swank tea tomorrow! And besides, Miss Butinsky, I'll have you know I buy a Bond in every Drive!

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War Conscience: And I s'pose you think you rate a new halo every time, huh? Listen, cutie, how's about stocking up on



bonds regularly—every month—and hanging on to 'em? The boys go right on fighting, don't they? The cost of the war keeps right on piling up, doesn't it? So why

SANKA COFFEE

CAFFEIN-FREE . . . DRINK IT AND SLEEP
Product of General Foods



FOR DELICIOUS ICED COFFEE—
make Sanka Coffee double
strength (2 heaping table-
spoons to one cup of water).

PRINCESS ELIZABETH

predecessors are related to events always took place in the would not be interrupted.

Since she was 6, Elizabeth's formal
by an able young Scotswoman, Maria
everyone in the royal household. Crawfie
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History is her best

By the time Elizabeth, for history and language,¹² she had shown a marked aptitude for mathematics, a sublime distaste for mathematics. At that point her education had to be consulted, a matter on which the British government had to be consulted, before the Cabinet for approval. It was made by Queen Mary. Elizabeth's mother had planned for her to go to a girls' school so she could meet more of her King and Queen but son were difficult, so it was decided she should go to a royal person as Queen Victoria had. Crawfie was, of course, chosen as her history professor. He was a member of the staff of tutors Henry Kennett Marten, brilliant, white-haired, was chosen as her history professor. He was a member of the staff of tutors at Windsor Castle, with a mirror-backed door and an Eton College, which tests a picture of her mother and a black telephone as a queen still spends many hours reading of past sovereigns and people. Her historical background already includes the study of constitutional changes from Saxon times to the present day as well as the history of British land tenure and agriculture. She is also well versed in American history and would love a trip to America, although she wisely says that will have to wait until she has visited the Dominions first. French is her best foreign language. She speaks it fluently with only a trace of English accent, thanks to her French-speaking companion-governess, the Countess de Bellaligue. To what would in Victorian days be called "the accomplishments"—she plays the piano, sings agreeably and dances—Elizabeth has added some completely 20th Century arts. She swims, drives a car, likes American dance music, has the "good hands and pretty seat" of an accomplished horsewoman, is a good shot and has an interest in the theater. Some years ago, when she was very young, Elizabeth was asked what she would like to be when she grew up. Without a moment's hesitation she answered, "I should like to be a horse." Time has served to modify that ambition. Whether anyone would genuinely like to lead the antiseptic and rather empty life of a modern queen may be a matter for doubt. But Elizabeth will have that duty; nothing but death or a radical change in the course of British history can prevent it. That being the case, her ambition is to be a good queen. If she has learned her history well and, like the earlier Elizabeth, reflects and encourages the contemporary spirit of her people, she may occupy a position in history of somewhat similar importance. The first Elizabeth built the British Empire. The second, by subtler and less tangible means, may keep it together.



On V-E Day royal family appeared before a huge crowd on Buckingham Palace balcony. Elizabeth (left) wears ATS uniform. Margaret (right) was too young for ATS.

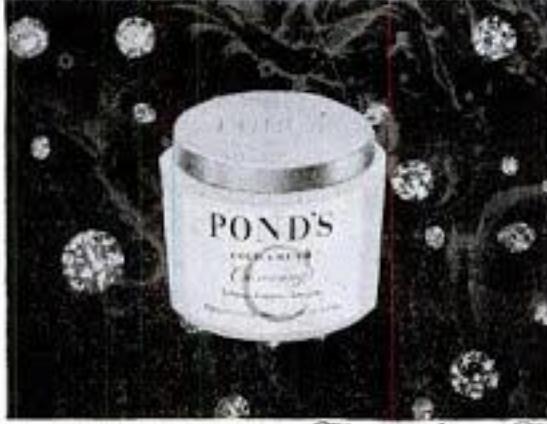
Infantry Officer from Kansas
will wed Arkansas Girl
Engagement of
BETTY JANE CANNON
to
H. W. SMITH, Jr.
has been announced
by her parents

She's Engaged!

SHE'S LOVELY! SHE USES POND'S!



"POND'S IS MY CREAM," Betty Jane Cannon says. She has one of the prettiest complexions you've ever seen—adorably soft and smooth!



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a large and two
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bonds regularly—every month—and hanging on to 'em? The boys go right on fighting, don't they? The cost of the war keeps right on piling up, doesn't it? So why

shouldn't you go right on buying bonds to pay for it?

Woman: Oh stop it, stop it—you're making me feel worse than ever! And I'm low enough already. Had coffee for dinner last evening—and couldn't get a snooze in edgewise, all night. Sister, it'd take two new hats to lift my spirits!

War Conscience: I don't care if you have been up counting fireflies—it's out of the hat department and over to the Bond Booth for you. And anyway, why don't you drink Sanka Coffee?



Woman: Sanka Coffee? How would that help?

War Conscience: Cutie, Sanka Coffee couldn't keep you awake even if it wanted to—it's 97% caffeine-free! But the grand coffee flavor and aroma didn't move out with the caffeine. No sir. They're still in Sanka—right here to make you sigh and say, "How simply super!" So get your Bond—get some Sanka—and after a few nights of s-l-e-e-p-i-n-g, you and I'll get along like a breeze and a kite!



FOR DELICIOUS ICED COFFEE—
make Sanka Coffee double
strength (2 heaping table-
spoons to one cup of water).

SANKA COFFEE
97% CAFFEIN-FREE . . . DRINK IT AND SLEEP
A Product of General Foods

PRINCESS ELIZABETH CONTINUED

predecessors are related to every royal house in Europe. Such expeditions always took place in the afternoon so that morning lessons would not be interrupted.

Since she was 6, Elizabeth's formal education has been supervised by an able young Scotswoman, Marion Crawford—"Crawfie" to everyone in the royal household. Crawfie has a quiet, confident charm and anyone who wants a quiet place to relax, gossip pleasantly or confide usually goes to Crawfie's apartment. If young Betts, as indeed she did, found it easier to absorb history while lying on her stomach on the floor of Crawfie's room, Crawfie had no objections.

History is her best subject

By the time Elizabeth was 12 she had shown a marked aptitude for history and languages and a sublime distaste for mathematics. At that point her education became a matter on which the British government had to be consulted, and the plan laid before the Cabinet for approval. It was made not only by the King and Queen but by Queen Mary. Elizabeth's mother wanted her to go to a girls' school so she could meet more of her contemporaries, but the choice of a school and the specialized curriculum necessary for a royal person were difficult, so it was decided she should have a staff of tutors as Queen Victoria had. Crawfie was, of course, retained. Clarence Henry Kennett Marten, brilliant, white-haired provost of Eton College, was chosen as her history professor. He rates Elizabeth as a "much better than average" pupil. In an ornately furnished study at Windsor Castle, with a mirror-backed door and an Empire desk (on which rests a picture of her mother and a black telephone) the future queen still spends many hours reading of past sovereigns and their people. Her historical background already includes the study of constitutional changes from Saxon times to the present day as well as the history of British land tenure and agriculture. She is also well-versed in American history and would love a trip to America, although she wisely says that will have to wait until she has visited the Dominions first. French is her best foreign language. She speaks it fluently with only a trace of English accent, thanks to her French-speaking companion-governess, the Countess de Bellaigue. To what would in Victorian days be called "the accomplishments"—she plays the piano, sings agreeably and dances—Elizabeth has added some completely 20th Century arts. She swims, drives a car, likes American dance music, has the "good hands and pretty seat" of an accomplished horsewoman, is a good shot and has an interest in the theater.

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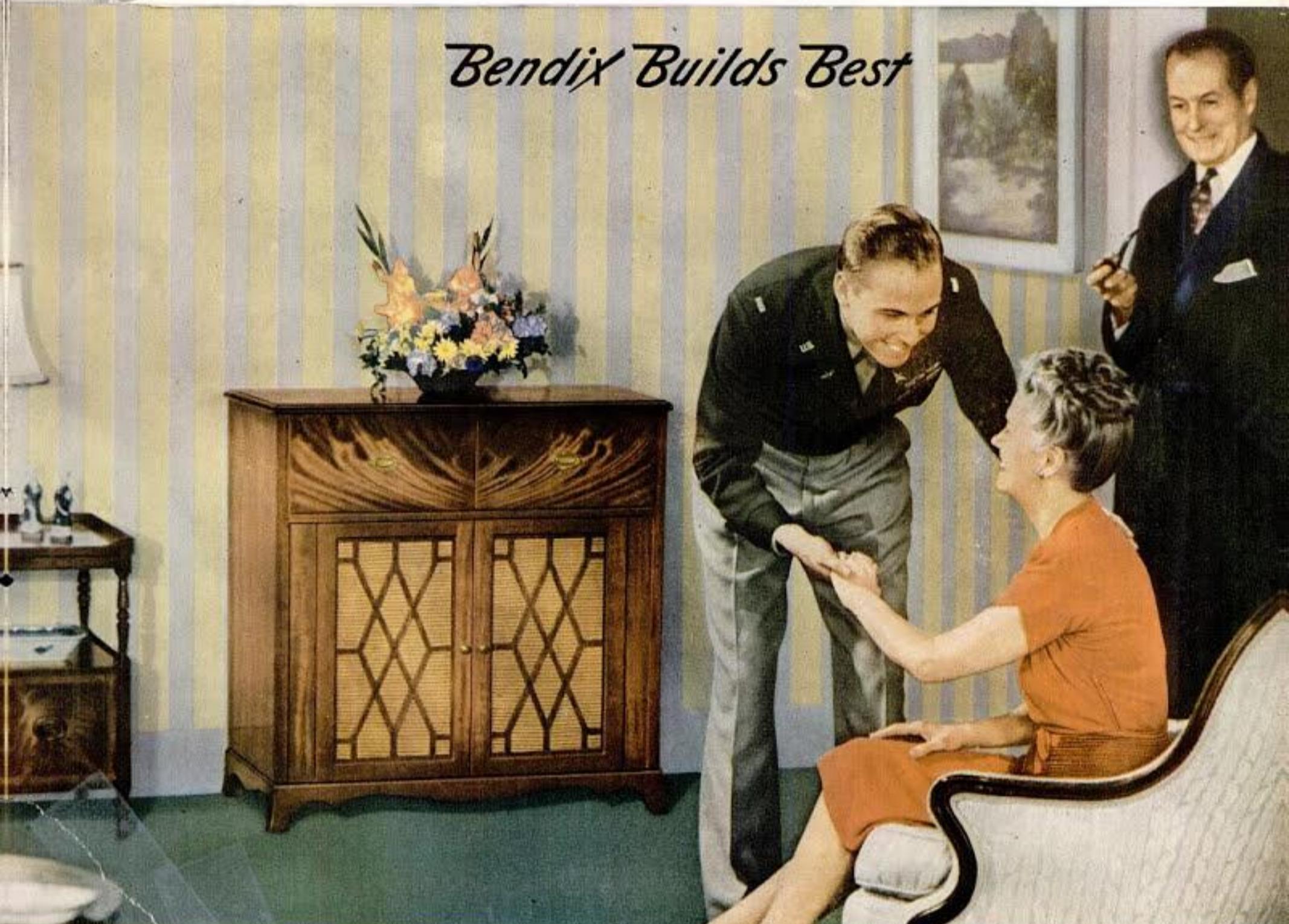
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Wherever planes fly you'll find equipment by Bendix
—greatest name in aircraft radio—guiding men home
through flak and storm-filled skies.

This peerless performance has given airmen
'round the world the firm conviction that . . .

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Bendix postwar Radios and Radio-Phonographs have an impressive heritage of leadership. Products of an unparalleled experience in radar, radio and electronics . . . built by an organization trained to rigid aviation standards . . . and backed by a name long identified with advanced thinking in all modern sciences, radios by Bendix will naturally carry home entertainment a long step ahead. Sharper, "on the beam" tuning . . . finer F.M. and Television . . . tone so true to life that you, too, will christen Bendix the *Real Voice* of Radio . . . styling so beautiful that your Bendix Radio will become the focal point of any room—all these advancements are bound your way from Bendix in a complete range of models and prices. For peace as for war Bendix builds best—ask any airman.

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Welcome him back with a

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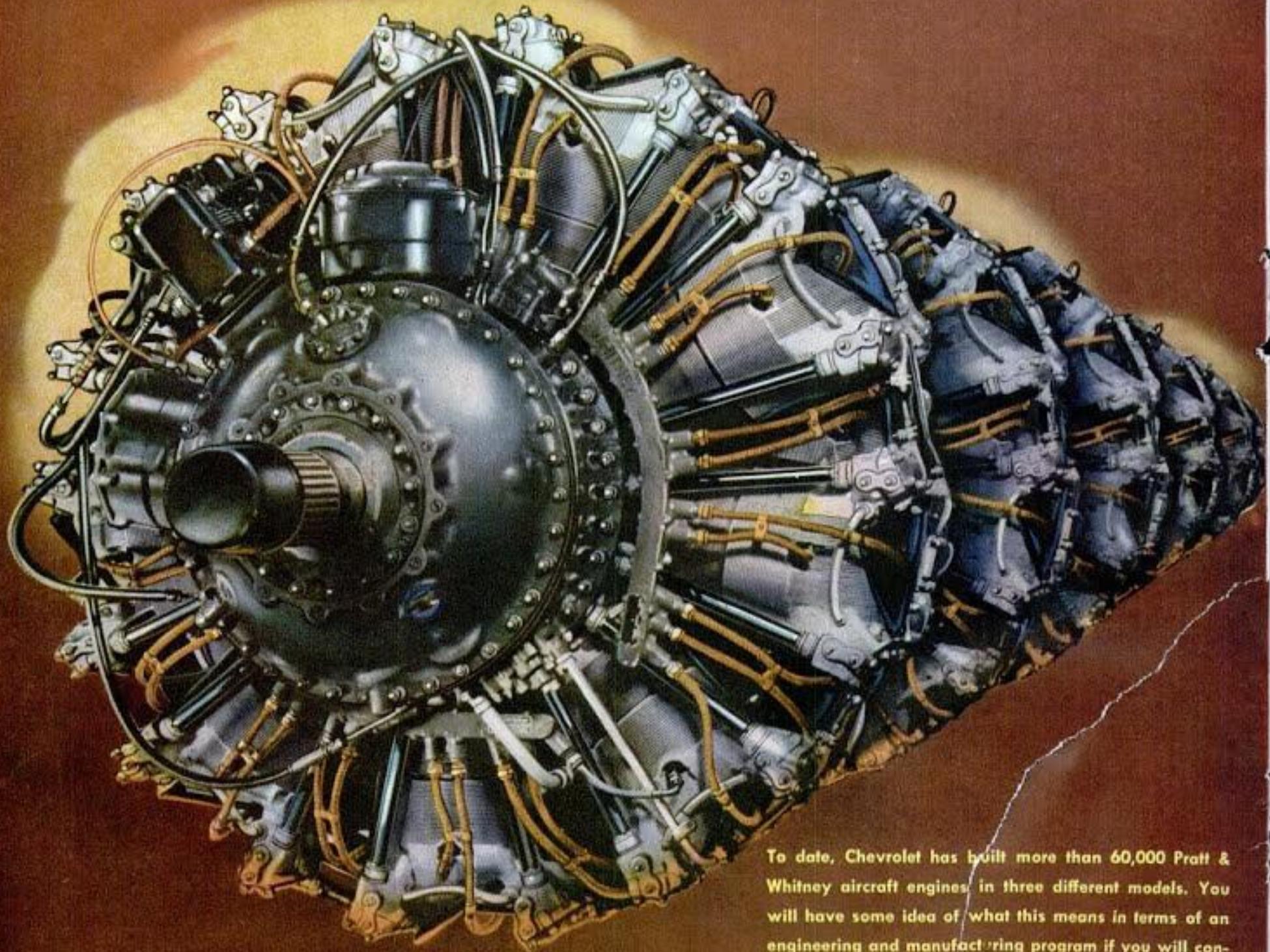
TODAY—RADAR, AND RADIO EQUIPMENT FOR THE ARMY, NAVY, RAILROADS, AIRLINES. TOMORROW—RADIO, RADIO-PHONOGRAHS, F.M., AND TELEVISION FOR THE HOME

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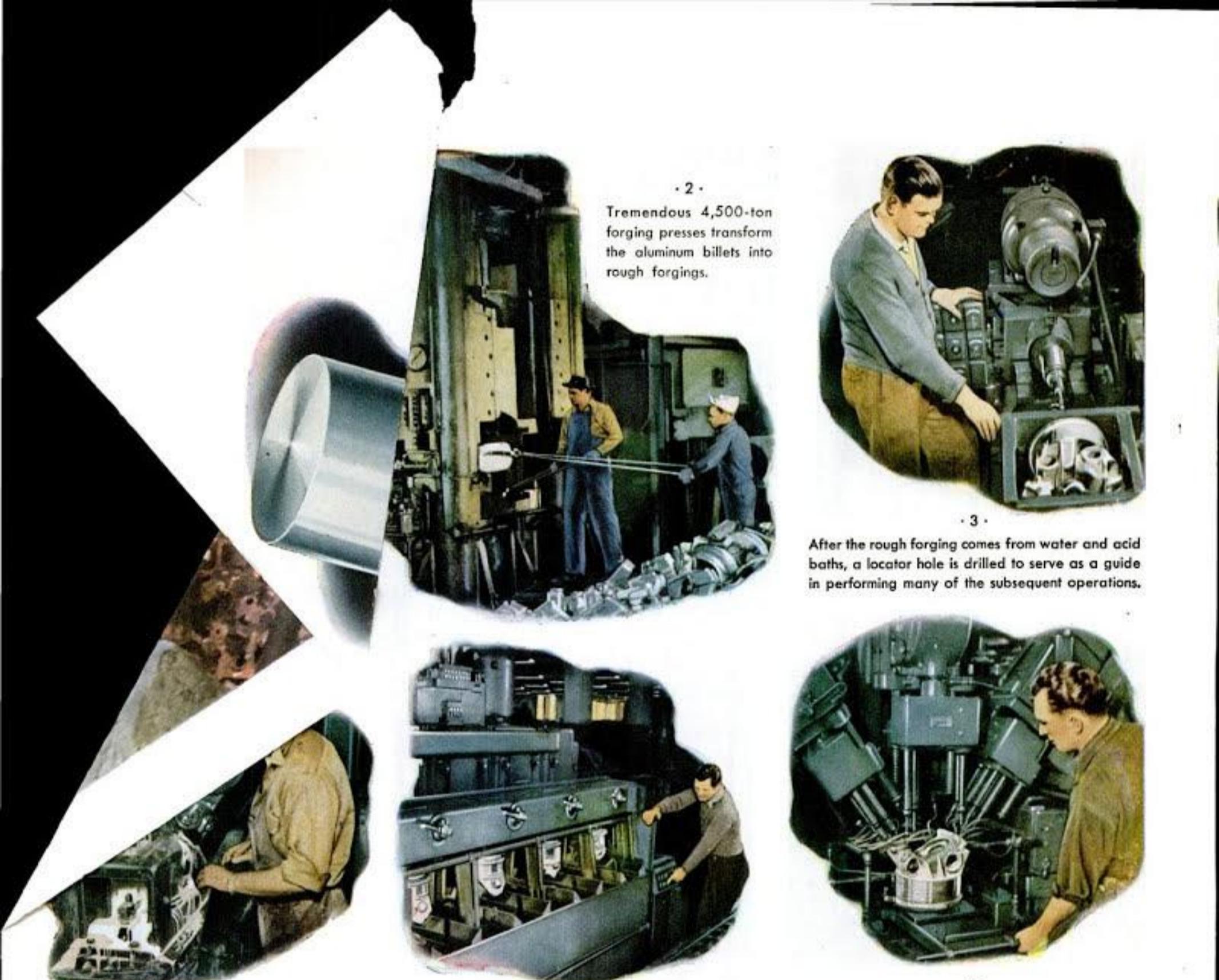
Follow **ONE** vital part
through **ONE** Chevrolet-operated plant
and you will gain some idea of what

BUILDING 60,000 AIRCRAFT ENGINES

means ...



To date, Chevrolet has built more than 60,000 Pratt & Whitney aircraft engines in three different models. You will have some idea of what this means in terms of an engineering and manufacturing program if you will consider just a few of the operations performed on one part—the cylinder head.



• 4 •

Hundreds of machines burr, drill, cut and mill the forgings to infinitely close tolerances as they progress toward the finished state.

• 5 •

This ingenious, four-spindle finning machine saws the peculiar fin-like surfaces (82 fins on a front head, 80 on a rear head) to extremely close limits.

• 2 •

Tremendous 4,500-ton forging presses transform the aluminum billets into rough forgings.

• 3 •

After the rough forging comes from water and acid baths, a locator hole is drilled to serve as a guide in performing many of the subsequent operations.

• 6 •

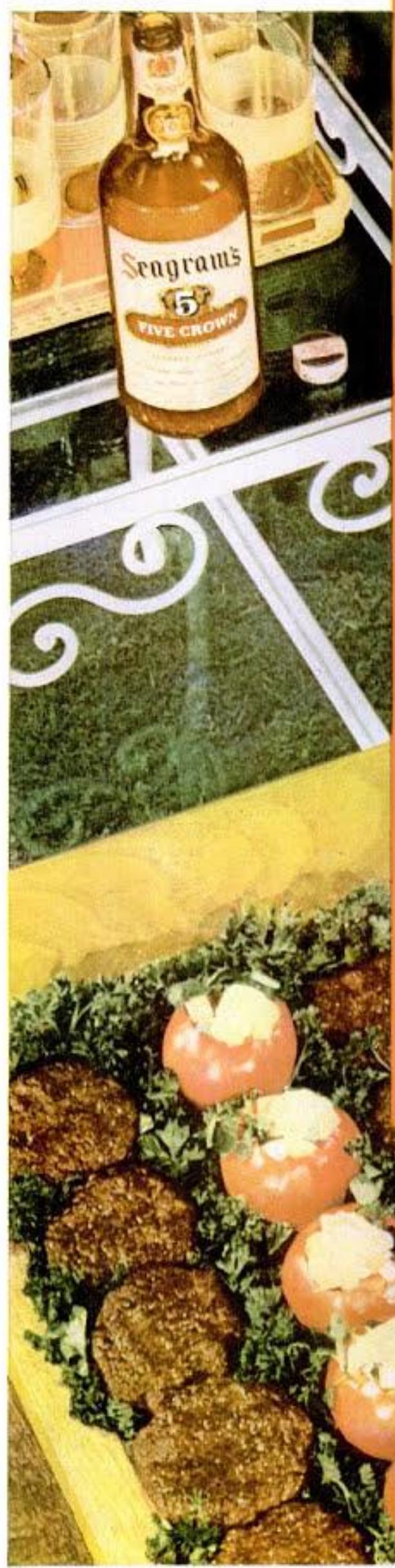
Final machining operations bring the cylinder head to a state of jewel-like precision; and after minute tests and inspections, it is ready for installation in an "R-2800" engine.

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 DIVISION OF
GENERAL
MOTORS

BUY MORE WAR BONDS





One Good Taste Deserves Another

THREE'S one sure way to add zest to barbecued food: precede it with a Seagram's 5 Crown highball! For fine flavors go together...should be enjoyed together...*team'd up for taste!*

Yes, Seagram's 5 Crown is blended for taste. Seagram's craftsmen select their finest "flavor" whiskies...blend them with pedigreed grain neutral spirits distilled for this one purpose...supervise every step from barrel to bottle to insure true pre-war quality.

Keep this in mind when you buy: good taste says "Seagram's 5 Crown, please!"...because Seagram's 5 Crown always pleases good taste!

SEAGRAM TAKES THE
TOUGHNESS OUT...BLEND'S
EXTRA PLEASURE IN

Seagram's 5 Crown

Say Seagram's and be Sure of Pre-War Quality

SEAGRAM'S 5 CROWN BLENDED WHISKEY, 72 1/2% GRAIN NEUTRAL SPIRITS, 86.8 PROOF, SEAGRAM-DISTILLERS CORPORATION, CHRYSLER BLDG., NEW YORK

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IN "CANDIDA" CLARE BOOTHE (CENTER) IS SURROUNDED BY PROFESSIONALS: PAUL MC GRATH, JEROME SHAW, DEAN HARENS, BRENDA FORBES, AUBREY MATHER

"CANDIDA"

A glittering audience turns out for Congresswoman Clare Luce's performance in famous Shaw play

Triangle in *Candida* comes about when Morell, an 18-year-old poet, falls in love with Candida, wife of a stuffy clergyman.



For one night last week the little city of Stamford, Conn., became the center of U. S. theatrical interest. Clare Boothe Luce, congresswoman and playwright, was making her debut as an actress in the title role of George Bernard Shaw's *Candida*. On opening night the Stamford movie house, temporarily turned over to summer stock, was filled with New York critics, Washington politicos, Broadway first-nighters and Mrs. Luce's local constituents.

What this glittering audience saw on the stage was a typical summer-theater show. Surrounded by competent professional players, Mrs. Luce played the role

of Shaw's gentle heroine, who has to choose between her upright, stuffy husband and an adolescent, lovesick poet. The New York critics, applying professional Broadway standards, found her lacking in "warmth" and "credibility," decided that Katharine Cornell, the most famous *Candida*, had no cause for uneasiness. Said the judicious *Variety*, "There have been better and worse interpretations of *Candida*."

Mrs. Luce, who feels that playwrights could benefit from some experience behind the footlights, told a reporter after the show, "It took me a little while to get over the first stage fright. But I had a lot of fun."

Candida's father, who is certain that Morell, *Candida's* husband, is crazy, is told by Morell's secretary that the poet is mad, too.



Candida's husband, upon whom all the women of the parish dote, takes his wife's love for granted.



POLITICAL AND THEATRICAL CELEBRITIES FILL THEATER



The Strand lobby was jammed. To those who criticized her "play-acting" Mrs. Luce replied that she knew of no other vacationing congressman bringing such a crowd to the home town.



Theatrical friends (left to right) Gilbert Miller, Moss Hart, Evelyn Keyes, Max Gordon arrived, too. So did Fredric March, Jean Arthur, Betty Field and Libby Holman and her son.

The Stamford opening of *Candida* had more glitter than many a Broadway first night. For an hour before curtain time crowds stood in the rain outside the Strand Theater to see the celebrities arrive. They saw plenty. The PAC was stopped from distributing pamphlets attacking Mrs. Luce's politics. Connecticut's Governor Baldwin vaulted a row of seats when he got in the wrong one. Brigadier General Elliott Roosevelt was mobbed by hobby-soxers seeking autographs. Said Actress Luce, "This is some way to get votes."



Representative Joe Martin, G.O.P. leader in Congress, came with Mrs. Samuel Pryor Jr.



Governor Baldwin (left) appeared with politicians J. Kenneth Bradley, John Brennan.



Mary Martin came, too. So did Bernard Baruch, Leland Hayward, Margaret Sullavan.



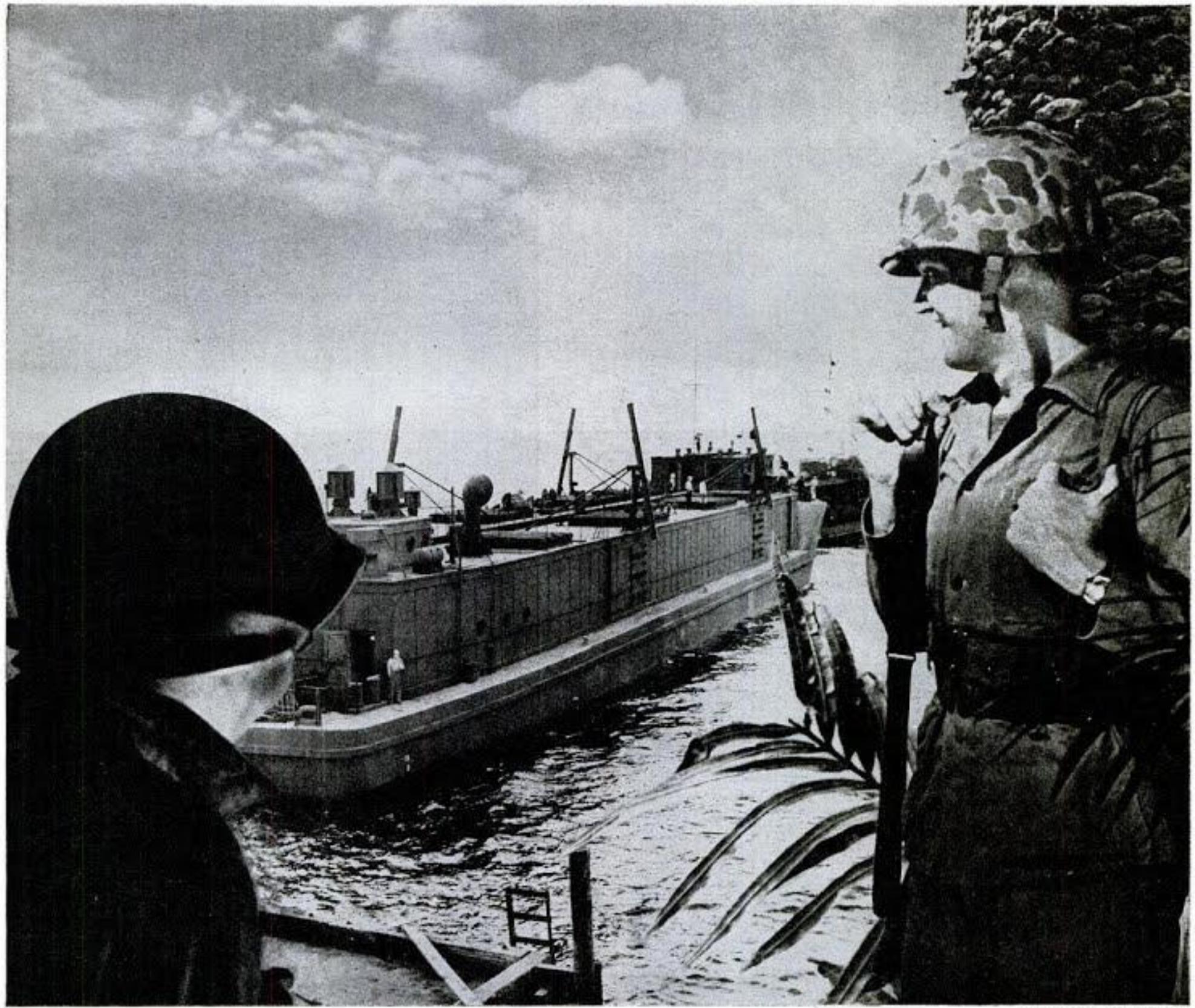
Producer Lee Shubert attended, as did Producer Brock Pemberton and his wife.



Producer John C. Wilson and his wife (nee Princess Natalie Paley) got caught in rain.



Brig. General Elliott Roosevelt and his wife Faye Emerson arrived hand in hand.



BUY WAR BONDS AND STAMPS

"Hey — it's the ice cream factory!"

There's plenty of excitement in Pacific outposts when this curious craft heaves over the horizon.

It's officially a BRL (Barge, Refrigerated, Large). Built of concrete, 265 feet long, it cost a million dollars. And it's worth every penny of that to lonely American boys who are fed up with alphabet rations, however nutritious.

Each BRL (the Army operates three) is a floating refrigerator and food factory. It carries 1500 tons of frozen meat, 500 tons of fresh vegetables, eggs, cheese and milk. And a big ice cream freezer.

The machine can make 500 gallons of ice cream a day — with storage space for 1500 gallons more. Can you imagine a greater tonic to body and spirit than real ice cream served in steaming jungles or on hard-won beachheads? It's a touch of home as well as a valuable food. Many tons of the powdered ice cream mix that makes this possible are furnished by National Dairy.

Meantime, back home, National Dairy Laboratories are working constantly to bring to soldiers and civilians alike—in newer, better, more useful forms—all the health inherent in milk — *nature's most nearly perfect food*.

Dedicated to the wider use and better understanding of dairy products as human food . . . as a base for the development of new products and materials . . . as a source of health and enduring progress on the farms and in the towns and cities of America.



NATIONAL DAIRY
PRODUCTS CORPORATION
AND AFFILIATED COMPANIES

HE DREAMED OF A HOLIDAY
IN A WORLD AT PEACE...



OF ALL the influences upon thought and feeling, there is none more compelling than music... melodies familiar and heartwarming, opening new vistas of memory... experiences yet to be lived...

No matter what kind of music touches your inner self and brings you the deepest personal satisfaction, you will enjoy it most on a Stromberg-Carlson.

In FM, Standard Broadcast, or record reproduction, Stromberg-Carlson makes it possible for you to hear all music as it was meant to be heard—with utmost clarity, with utmost realism in every gradation of tone. And once you have known the fuller, richer quality of a Stromberg-Carlson, you will never be content with a lesser instrument.

*For the main radio in your home... there
is nothing finer than a*

STROMBERG-CARLSON

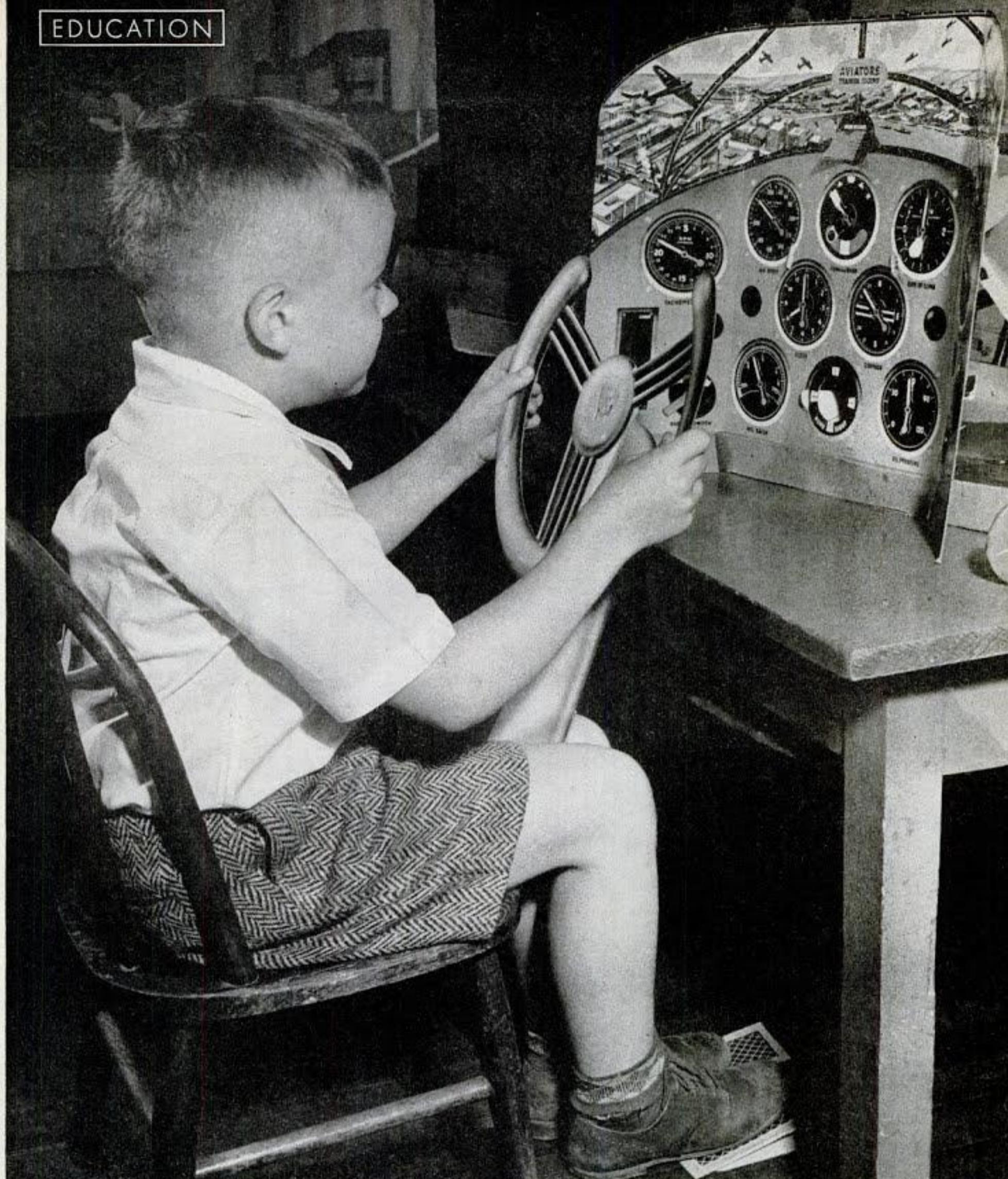
© INC. STROMBERG-CARLSON COMPANY, ROCHESTER, N. Y.



SHE PLANNED A HOMECOMING...
FOR THEIR SON



IF YOU ARE among those who have promised themselves a Stromberg-Carlson after the war, this is our promise to you: We are now planning the finest FM and Standard Broadcast instruments we have ever made—finest in every detail of radio reception and record reproduction—in cabinetry. You will be able to choose your Stromberg-Carlson from a superb variety in a wide price range.



SECOND-GRADE BOBBY JOHNSON OF CHATTANOOGA, AGE 7, FLIES IN THE CLASSROOM AIRPLANE COCKPIT. HE CAN TURN DIALS TO SIMULATE FLIGHT PROGRESS.

AIR EDUCATION

Chattanooga public schools teach
youngsters to live in aviation age

The air age that has sneaked up on grownups almost unaware is not going to catch youngsters in Chattanooga, Tenn., by surprise. From kindergarten to college the public schools, guided by state aeronautics bureaus and the Civil Aeronautics Administration, are integrating aviation projects with regular classroom curricula. Seven-year-olds like Bobby Johnson (above) study aviation equipment and terms as early as second grade. In the higher grades, students learn

the social significance of living in a world where fast planes shrink distances and make all peoples close neighbors. In high school they even learn to fly.

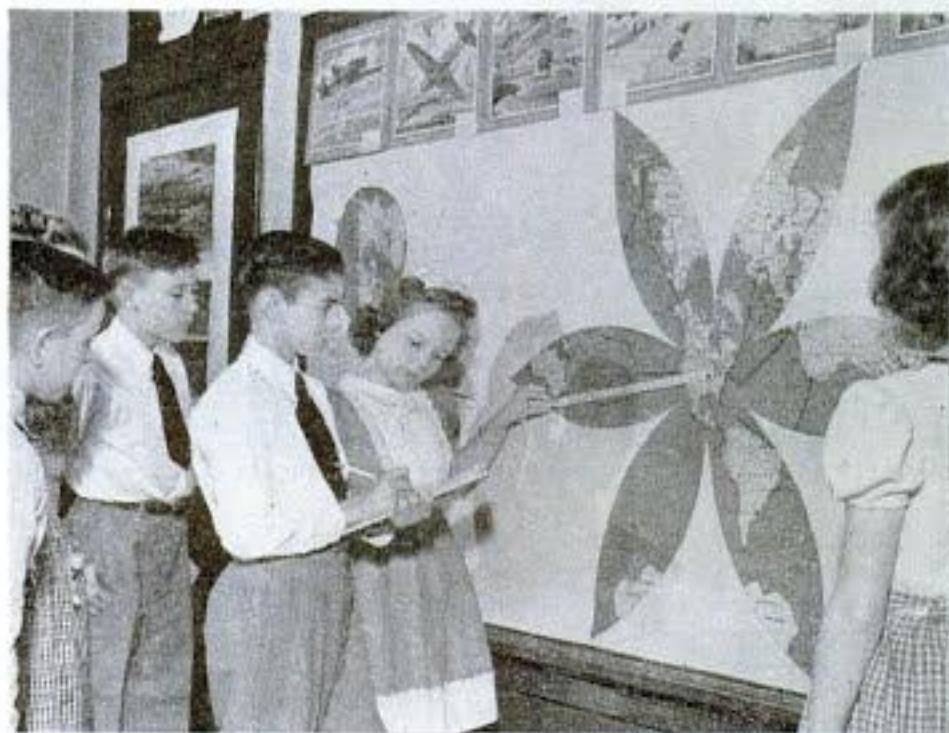
Tennessee is one of 14 states which have a comprehensive air-education program. Half the nation's 28,000 public high schools give aviation courses. Textbooks are the new *Air Age* series (Macmillan). Planes for laboratory study come from the Army, which donates surplus planes to schools that ask for them.



In Chattanooga, whose air education courses are shown here, weather balloon is released by second graders during visit to city airport with Teacher Grace Corbly. Weathermen themselves (see right), they knowingly made readings on anemometers, barometers and other equipment.



Inspecting a real plane for the first time is a climax to 7-year-olds' airport visit. They examine the trainer to identify all the parts that they have studied on a model plane in their classroom and boldly push the stick and rudder pedals to show what happens on wings and tail.



Air-age geography is studied by sixth graders on a flattened-out globe map with Chattanooga in the center. On it they can measure the shortest air distance to any place in the world. Here they find mileage to Melbourne, Australia, then compute the flight time necessary to get there.



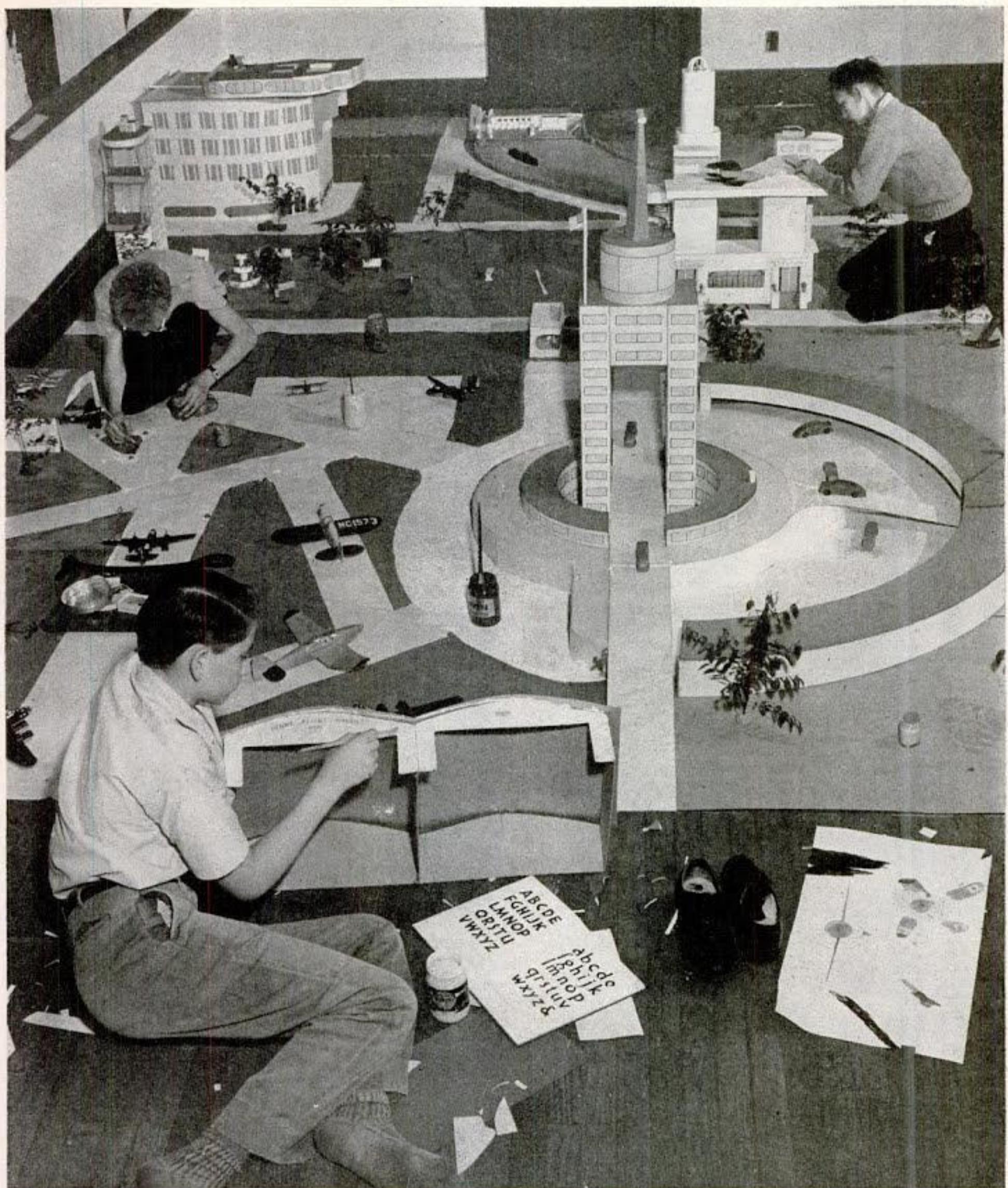
Weather chart kept by Mrs. Corbly's class at Missionary Ridge School shows temperatures, condition of the sky and wind each day. Here David Floyd finds direction of the wind with a pinwheel while Susan Hoffman draws a triangle to show that the day is cloudy but clearing.



Aerodynamics of a swan is studied by biology students in junior high school so they can better understand basic reasons why an airplane flies. On blackboard, they diagrammed principles of aerodynamics—a word they love to use crudely—and mounted pictures of planes.



For military-equipment project sixth graders borrowed a Mae West life belt from a student's pilot-brother. Ed Guthrie and Jo Ann Lucas puffed hard to inflate it. When the exhibit is assembled, students don gear and give speeches before the class to explain its use by servicemen.

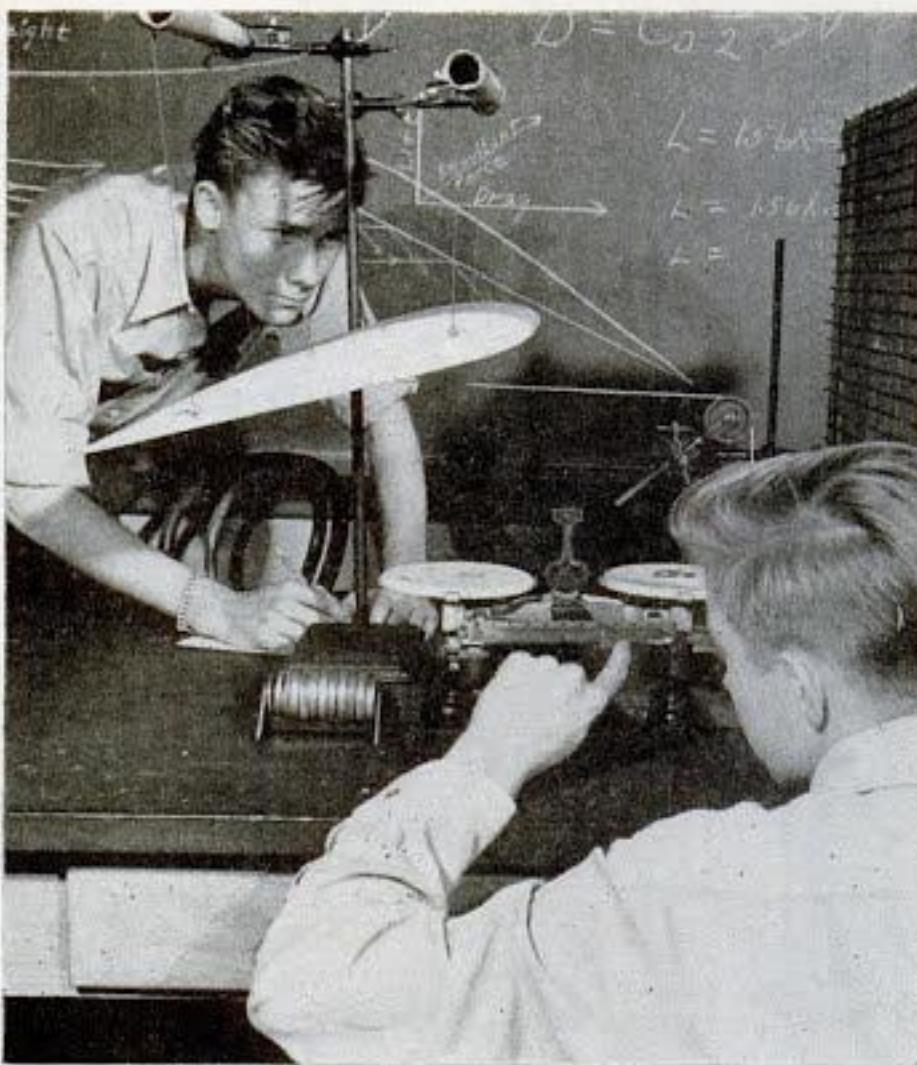


ART STUDENTS IN JUNIOR HIGH DESIGN A MODEL AIRPORT FOR CHATTANOOGA, COMPLETE WITH ELABORATE TERMINAL, FANCY RUNWAY PATTERN, SUPER ROADWAYS

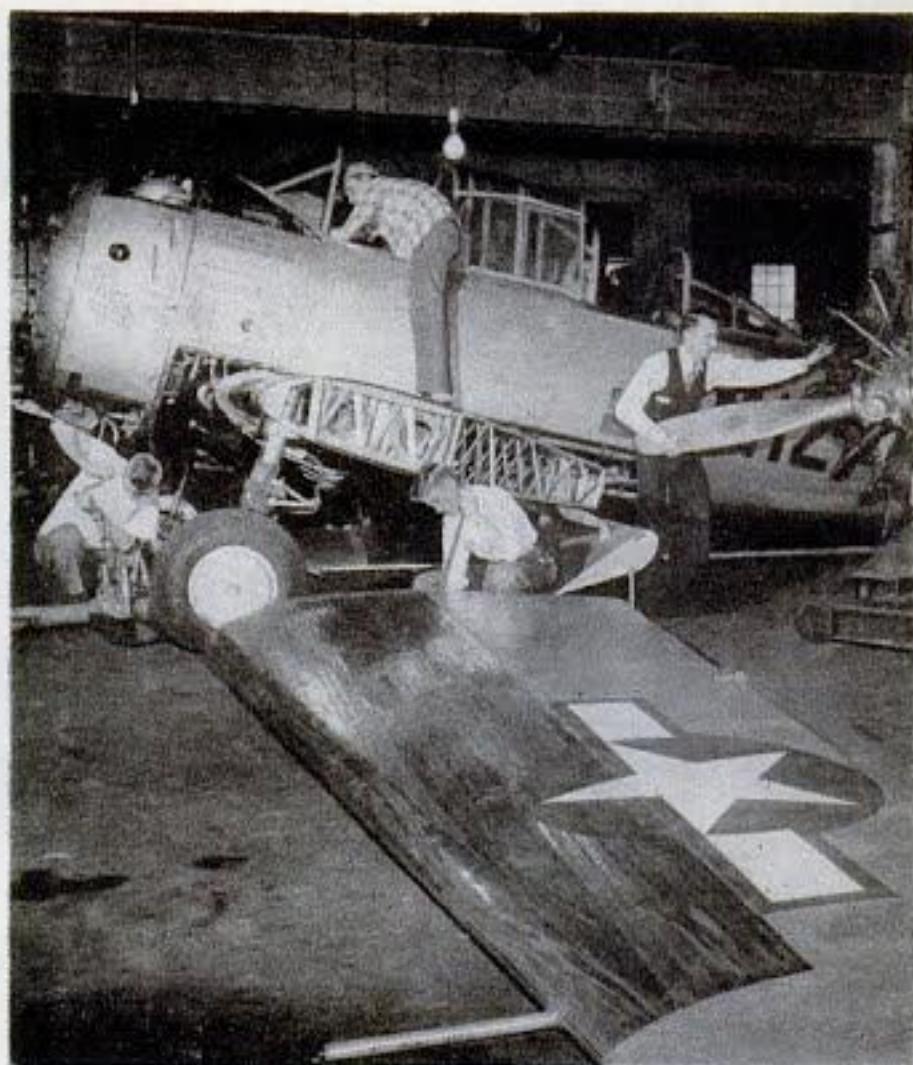
YOUNG CHATTANOOGANS HAVE VARIED AVIATION COURSES

Chattanooga teachers can study aviation at the state university but even then they have a hard time keeping ahead of their air-wise students. Children outdo them in identifying planes; many have flown when their teachers were still groundlings. In grade school, teach-

ers organize aviation projects, some letting pupils collect planes from breakfast-cereal boxes, others taking them to the airport and weather bureau. A more formalized *Air Age* curriculum is followed by high-school students. Tennessee currently has 371 of them flying.



Wind-tunnel experiments to measure angles of lift of Piper Cub wing are performed in high-school aviation class with homemade apparatus. Fan blows wind through grate at right.



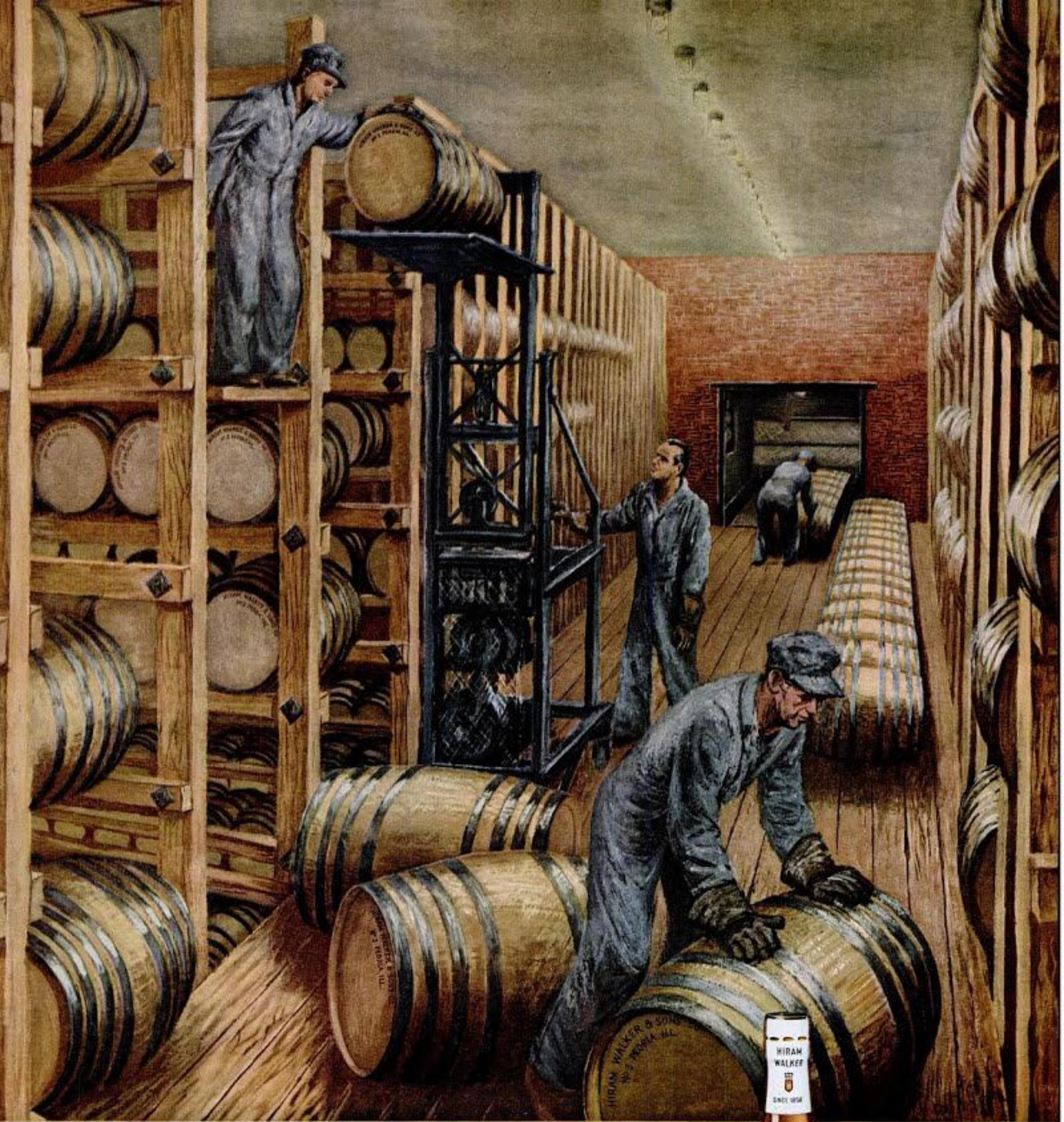
Disassembling Army plane and engine is part of high-school aerodynamics course. Chattanooga schools get planes from Army surplus property bases, paying only shipping charges.



Model airplane kicks up dust as Dick McDowell restrains it from take-off. Dick's one-cylinder model is best in Chattanooga, goes 60 mph, climbs and dives on the end of a fishline.



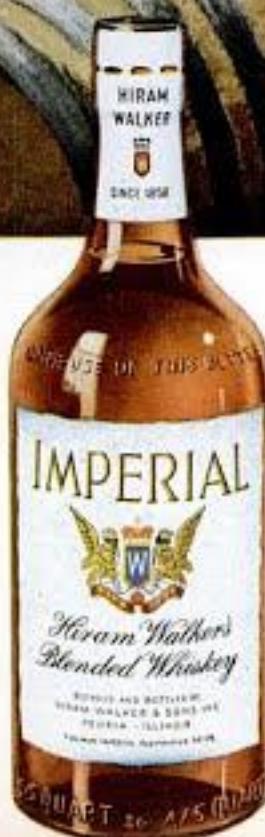
Pilot Tom Cuthbert, high-school senior, had a quarter of his expenses for sojourn paid by the state on a flight scholarship, which is offered to every student in the aerodynamics course.



"Barrels of Whiskey Aging in the Rockhouse"—painted at the distillery by Howard Baer

87 years at fine whiskey-making
makes this whiskey good

IMPERIAL
Hiram Walker's Blended Whiskey



**It takes barrels of
money to win a war.**

The \$335 of excise tax paid on every barrel of whiskey... more than one billion dollars a year from the distilling industry... is only a fraction of America's war cost. It takes all the money you can put into war bonds, too! Buy more... hold them!

86 proof. The straight whiskies in this product are 4 years or more old. 30% straight whiskey, 70% grain neutral spirits. Hiram Walker & Sons Inc., Peoria, Illinois.

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How many locomotives make a railroad?

HOW many locomotives a railroad needs depends on many factors—the size of the railroad, the kind and amount of load it carries, the nature of the territory it serves, and so forth.

Today, however, regardless of these factors, a railroad can do the same job with fewer locomotives—thanks to an important development.

You see, for years, the railroads bought and maintained different types of equipment for freight and passenger service. Locomotives powerful enough to haul freight trains have usually been too costly to operate on passenger runs—and locomotives speedy enough for passenger service haven't had the pulling power to haul freights.

But now—out of the shops of American Loco-

motive—are coming locomotives that are *interchangeable*. Locomotives powerful enough to haul freights, yet speedy enough to handle passenger trains, with low maintenance costs and high availability. Locomotives that reduce the need for "helper" locomotives in getting trains over steep grades.

The principles underlying this development can be applied to any type of locomotive—diesel-electric or steam or any modification of either type. It doesn't matter whether a locomotive is powered by coal or oil—*economy of performance* is American Locomotive's chief concern.

This is just one of many developments that will contribute to finer postwar railroading. And it is significant that it comes from the Company that

designed America's first diesel-electric locomotive, built the world's largest steam locomotive and has supplied an important share of the locomotives now being used for war purposes by the United Nations.

American Locomotive
Alco
THE MARK OF MODERN LOCOMOTION

"All Girls Are Beautiful"



Most popular I. J. Fox theme song is *All Girls Are Beautiful*. Here it is used as a backdrop for models who illustrate the lyrics: "a blonde in sables divine" (\$12,000, left), "in mink

so sublime" (\$5,000, right) and "a blonde deep in ermine" (\$1,500, center). About 25,000 copies of music have been sold, many to men who tuck the song in with a fur coat present.

FURRIER FOX

HE HAS BALLYHOOD HIMSELF INTO A BIG BUSINESS

The perverse habit of buying a fur coat in August was promoted about 35 years ago by a few American merchants who wanted to keep themselves busy during the slack season. Their promotion succeeded so well that furriers are as busy in summer as they are in winter. Busiest of all is I. J. Fox of New York and three other cities who sells more furs in August than in any other month and more furs the year around than any other retailer in the U.S.

I. J. Fox has built up his tremendous fur business by perseveringly ballyhooing I. J. Fox. In New York during big sales, songs, jingles and announcements go out over the radio stations 70 times a day praising the name of Fox and the furs he sells. Many of the programs are introduced with the popular I. J. Fox theme song (see above), *All Girls Are Beautiful*. In the woods around his private lake at his country estate Mr. Fox has several loudspeakers which periodically burst out with this song. Until recently, Mr. Fox's photograph appeared in all his newspaper advertisements and, when he sailed to Europe, he used to give the ship photographers \$25 tips to make sure his picture would be included with those of celebrities. Before the war, planes wrote his name in smoke across the New York sky, and in Florida, where he frequently vacationed, his entrance at the race track would be heralded by zooming skywriting planes. After the war when airplanes are again available, the I. J. Fox skywriting will be done in color: blue, red, pink, green.



A fur queen is crowned every year by Mr. Fox. Here he poses with Jeane O'Donahue, the 1945 queen. Third generation of London furriers, Mr. Fox came to the U.S. when he was 17.

"ALL GIRLS ARE BEAUTIFUL" © 1944 BY LEEDS MUSIC CORPORATION, N.Y. REPRINTED HERE BY PERMISSION OF THE COPYRIGHT OWNER.



\$15,000 "Koh-i-nur" mink coat, made of a mutation of white mink with black guard hairs, is one of the novelty luxury furs which L. J. Fox presented at this year's fashion show. So rare is

this new mink that there are only 12 "Koh-i-nur" coats in existence. Last year's L. J. Fox sensation was a \$25,000 "silverblu" mink, three years before an \$11,000 platinum fox pelt.

CONTINUED ON PAGE 78

A LIFE STRANGER THAN FICTION!

A MAN STRONGER THAN FATE!

A STORY MORE FANTASTIC THAN

ANY STORY-TELLER EVER DREAMED!

A man to cheer! A man to marvel
at! **A MAN!** As the whole
amazing kaleidoscope of
drama, daring, comedy,
pathos, romance races swift-
ly across the screen, you'll
wonder whether all these
things could happen to
one man! Then you'll
gasp as you realize
that they not only
could . . but did!

20th
CENTURY-FOX PRESENTS
A Eureka Pictures, Inc. Production

**FRED
MacMURRAY** in

Captain EDDIE

THE STORY OF RICKENBACKER



with **LYNN BARI** · **CHARLES BICKFORD** · **THOMAS MITCHELL** · **LLOYD NOLAN** · **JAMES GLEASON**

and **Mary Philips** · **Darryl Hickman** · **Spring Byington** · **Richard Conte**

Directed by **LLOYD BACON** · Produced by **WINFIELD R. SHEEHAN** · Associate Producer **CHRISTY WALSH** ·

Screen Play by
John Tucker Battle

No curative power is claimed
for PHILIP MORRIS . . . but

AN OUNCE OF PREVENTION is Worth a Pound of Cure !

**PHILIP
MORRIS**

are scientifically
proved far less
irritating to the
smoker's nose
and throat.



**FAR FINE FLAVOR-PLUS
FAR MORE PROTECTION**

Furrier Fox CONTINUED



For \$150 woman can get Persian paw, kid-skin, lamb. This is South American lamb.



At \$250, muskrats outsell every other kind of fur coat. This is a silverblu-dyed.

ERMINE IS A COME-ON FOR MUSKRAT

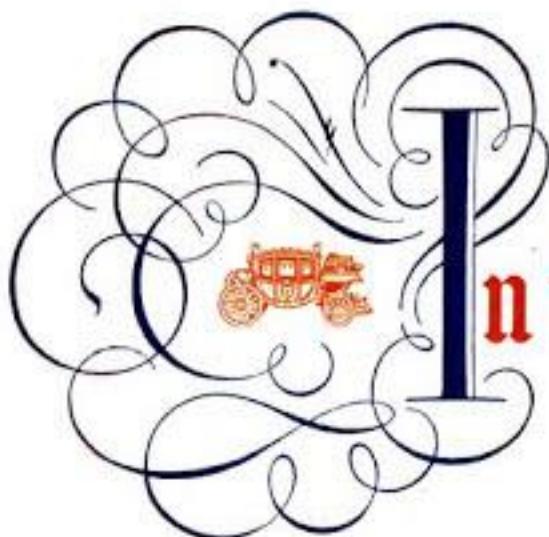
The lovely \$15,000 minks and \$12,000 sables which I. J. Fox flaunts are basically come-ons for his real business which is mass sale of \$250 muskrat and lamb, \$500 Persian and beaver. Fox prides himself on selling coats that look like a lot for the money. Like most low-priced furs, they have a life expectancy of three years before they are discarded or remodeled.



Fur slacks of black broadtail are pure Fox gag, made headlines when shown in 1943.



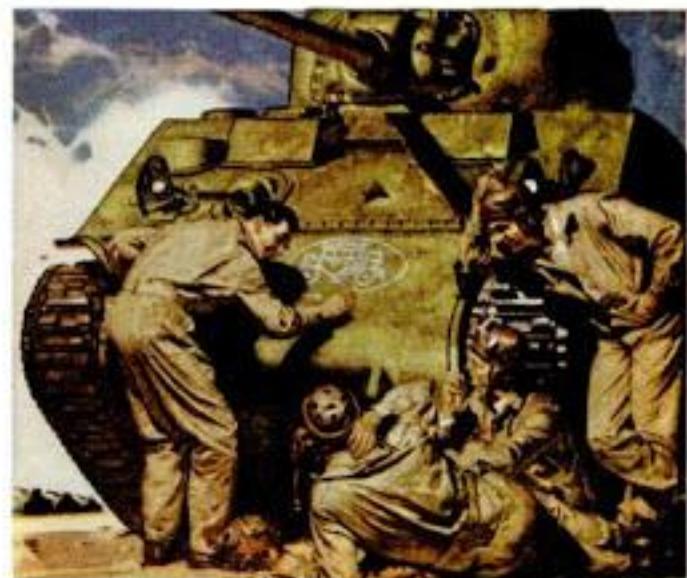
Fur bathing suit, of water-loving seal and ermine, was displayed in Miami in 1940.



In the service of its country,

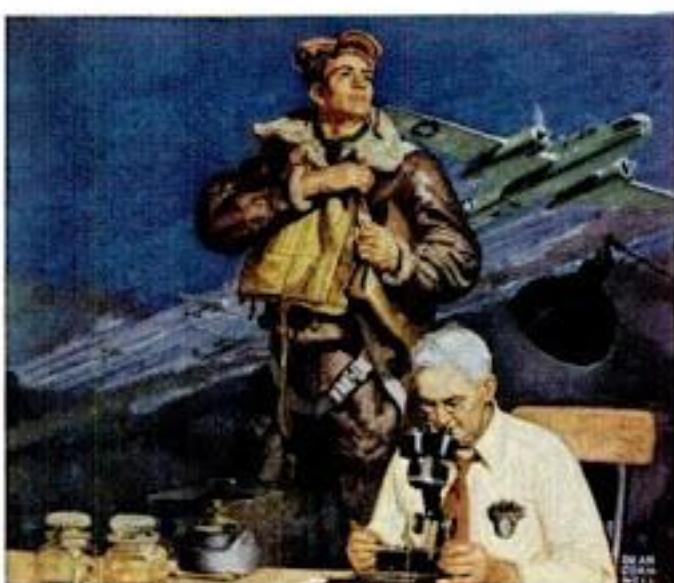
THE FISHER BODY

ORGANIZATION BUILDS TANKS.



FISHER BODY

BUILDS AIRCRAFT INSTRUMENTS.



IT KNOWS PRECISION.

FISHER BODY

BUILDS MAJOR AIRCRAFT ASSEMBLIES.



IT KNOWS NEW METHODS AND METALS.

All this knowledge, coupled with more than 30 years' experience in fine coachcraft, is your assurance that in peace Body by Fisher will be the mark of a Better Automobile.



BODY BY
Fisher

ON GENERAL MOTORS CARS ONLY: CHEVROLET • PONTIAC • OLDSMOBILE • BUICK • CADILLAC

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It's "Gospel" in the U.S. Army

EVERY VEHICLE MUST HAVE
REGULAR SCIENTIFIC SERVICING!



Give Your Car the Best of Care . . . Mobilubrication!

IN COMBAT, breakdowns can mean loss of equipment, loss of life! That's why the Army enforces strict machine servicing regulations.

By the same token, neglect of your car can mean *loss of your car*—and no replacement yet in sight!

See your Mobilgas dealer *regularly* for scientific care...

He'll protect the engine with quality *Mobiloil*—world's largest-selling motor oil...give complete *Mobilubrication*—from a chart of your make of car...check radiator, spark plugs, battery, oil filter, air cleaner and other vital parts.

Like Army experts, he does a *thorough* job—and you get highest quality products. Get *Mobilubrication* today!

SOCONY-VACUUM OIL CO., INC.
and Affiliates: Magnolia Petroleum Company,
General Petroleum Corp. of Calif., Los Angeles.

"INFORMATION PLEASE" returns from vacation
Sept. 10. Until then, hear Rite Stevens and Hollywood
Music — Mondays 9:30 P.M., E.W.T., NBC



FOR QUALITY PROTECTION—

Mobiloil

— And Complete
Mobilubrication



LANDING CRAFT THAT PATTON'S MEN HAD USED TO CROSS THE RHINE PIQUETTE ON THE RIVER IN FRONT OF THE RED CROSS FLOAT AND ALMOST UPSET IT

RHINE REGATTA

The Army puts on a water carnival to keep high-spirited GIs happy

Ever since V-E Day the U. S. Army has worked industriously to absorb the almost atomic energies of the high-spirited American GI. Occupation troops are spending their peacetime playing in golf tournaments, competing in swimming meets, even going to school. This organized activity reached the spectacle stage last month in a huge regatta on the Rhine.

In the Rhine regatta, landing craft maneuvered in a water ballet and did a whirling snake dance down

river. A float full of nurses modeled everything from evening clothes to correct pup-tent wear. Parachute flares went off above them and hissed into the river. GIs watched the show from white bleachers and a Red Cross float (above). But, as in every regatta, not all went well. An outboard motorboat dunked its occupant, was no good for its scheduled exhibition. A Wac float got fouled up, drifted helplessly in the hot sun for hours and never got near the reviewing stand.

Is it Etiquet?

Must he give her a ring?

It's **Etiquet** because it's traditional... but it's not necessary. It's always etiquette to keep yourself feminine and dainty-sweet by using Etiquet Deodorant Cream every day... surely before every date. So creamy smooth, pure, antiseptic. And it works better too!



creamy smoo-oo-th... checks under-arm perspiration... stops odor!

• Etiquet Deodorant Cream goes on with a creamy-smooth feel... Wonderfully effective... checks under-arm perspiration, stops odor. Helps save your precious clothes. Spreads smoo-oo-thly! Works fast. No need to rinse off! Antiseptic. Pure. Soothing. Not irritating to normal skin. Look for blue-plaid jar at toilet-goods counters—10¢, 39¢, plus tax.

Copyright, 1944, by Lette & Flack Products Corporation, Elizabeth, N. J.



The Antiseptic Deodorant Cream—**Etiquet**

KEEP REGULAR
the healthful way!



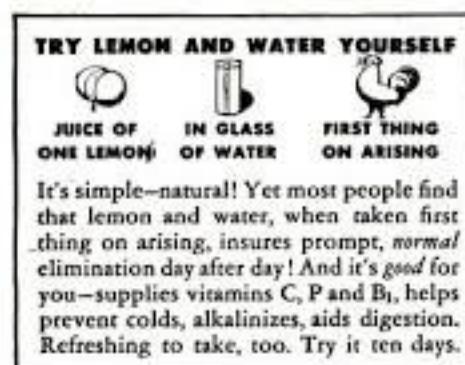
NO HARSH LAXATIVES



JUST LEMON AND WATER



IT'S GOOD FOR YOU!



TRY LEMON AND WATER YOURSELF

JUICE OF
ONE LEMON

IN GLASS
OF WATER

FIRST THING
ON ARISING

It's simple—natural! Yet most people find that lemon and water, when taken first thing on arising, insures prompt, *normal* elimination day after day! And it's good for you—supplies vitamins C, P and B₁, helps prevent colds, alkalinizes, aids digestion. Refreshing to take, too. Try it ten days.

LET'S FINISH
THE JOB—BUY
WAR BONDS



Keep regular the Healthful way!
LEMON and WATER
...first thing on arising



Four-oar shell race finished at the reviewing stand (across the river). The winners (in foreground) got war bonds, champagne and, best of all, three-day passes to Paris.



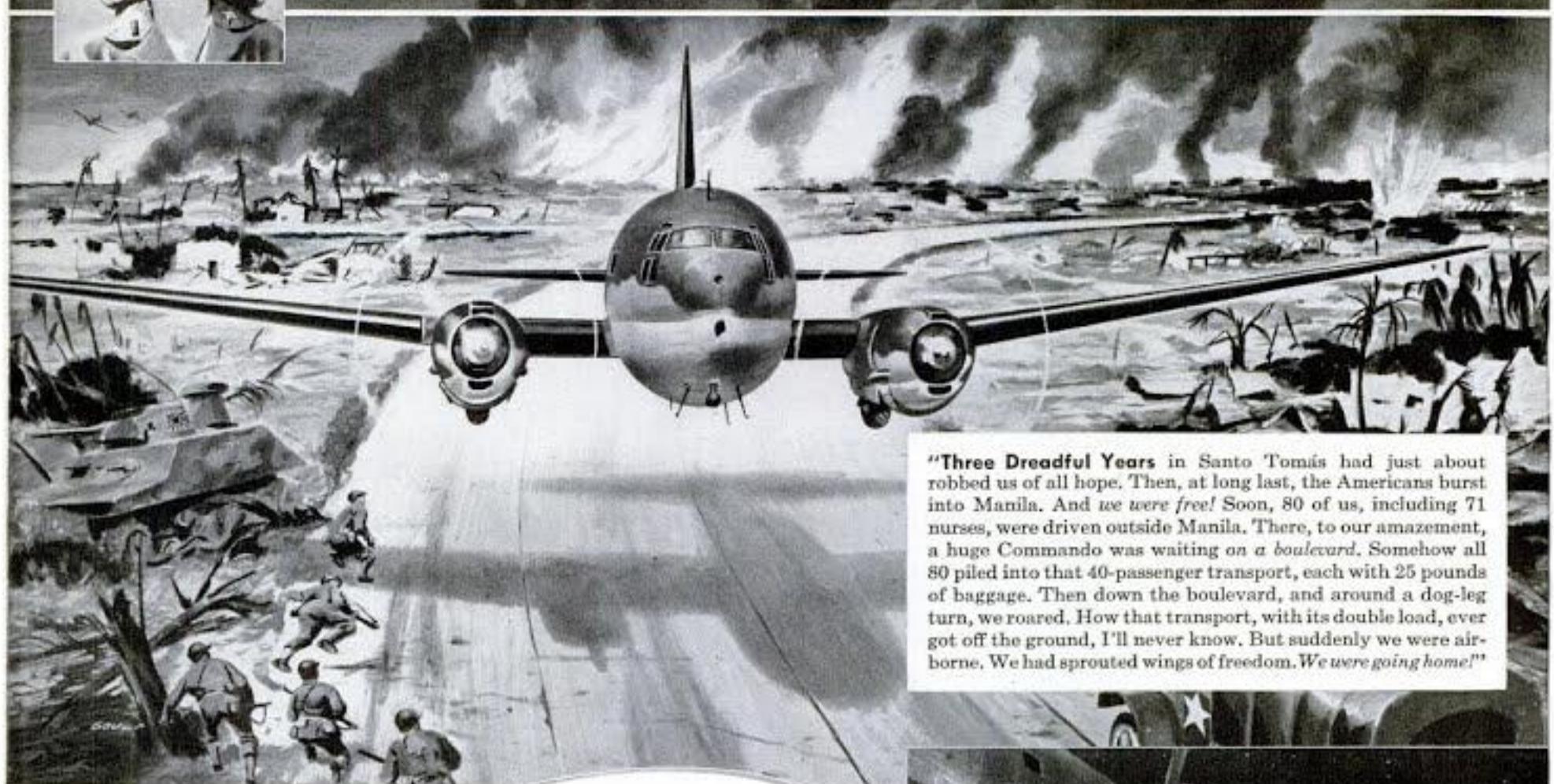
A hair-cutting contest was put on by two GI barbers and two brave "clients," both volunteers. Pfc Pasquale D'Amico (rear) won it. His time: seven and a half minutes.



Pancake contest, to decide who made best flapjacks, was judged by five GIs, among them Pfc Leon Moody (left), who, friends say, got Purple Heart running for chow.

"How Bataan's Angels of Mercy finally *SPROUTED WINGS*"

Based on a true story
taken from the war record
of the Curtiss Commando



"Three Dreadful Years in Santo Tomás had just about robbed us of all hope. Then, at long last, the Americans burst into Manila. And we were free! Soon, 80 of us, including 71 nurses, were driven outside Manila. There, to our amazement, a huge Commando was waiting on a boulevard. Somehow all 80 piled into that 40-passenger transport, each with 25 pounds of baggage. Then down the boulevard, and around a dog-leg turn, we roared. How that transport, with its double load, ever got off the ground, I'll never know. But suddenly we were airborne. We had sprouted wings of freedom. We were going home!"

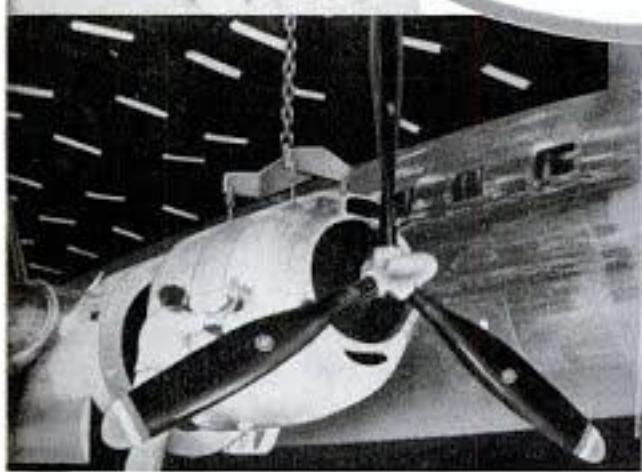


THAT'S WHY I'M FOR
THE AIRLINES THAT

Fly Commando!



The 10 Best-dressed Women will be as anxious as you will be to Fly Commando. There's room in its two spacious holds for lots more luggage... all those dresses, hats and shoes you had to leave at home before. And men... you won't have to leave golf clubs or fishing tackle behind. A Commando carries 3 1/4 tons of luggage and cargo!



Timesaver. The Commando is so much more accessible for maintenance that an entire engine unit can be changed in 20 to 30 minutes. And its faster flight stop servicing, added to a higher cruising speed than any of today's airliners, means that you'll get to your destination sooner, when you Fly Commando!



A Girl's Best Friend... the Commando's luxurious powder room! A well-lighted make-up mirror over a dainty boudoir table keeps you looking lovely. And imagine—a full-length door mirror! This is one of two separate lavatory lounges at the rear of the cabin. Up front is the big, streamlined sky kitchen.

THE CURTISS
Commando
Today's Great Lifeliner
Tomorrow's Great Airliner
Curtiss
Wright
FIRST IN FLIGHT



WEBER'S ABSTRACT SCULPTURE ANTICIPATED PICASSO
THIS FIGURE OF CARVED PLASTER DATES FROM 1917



MAX WEBER

A Great Neck poet and philosopher is the pioneer of modern art in America

by WINTHROP SARGEANT

To the average person the somber landscapes, primitive portraits and slablike nudes that Max Weber paints look deceptively heavy, coarse and unskilled. But to fellow artists, Weber's work places him as the greatest artist in America and one of the few really great ones in the world. Few living artists are so universally respected by people who paint and understand painting. Today this high professional reputation is spreading among a wider public. Weber's brooding canvases have been shown and bought by virtually every important museum in the country. They have won the most important prizes the art world has to offer. Collectors buy them avidly at prices that sometimes reach nearly five figures.

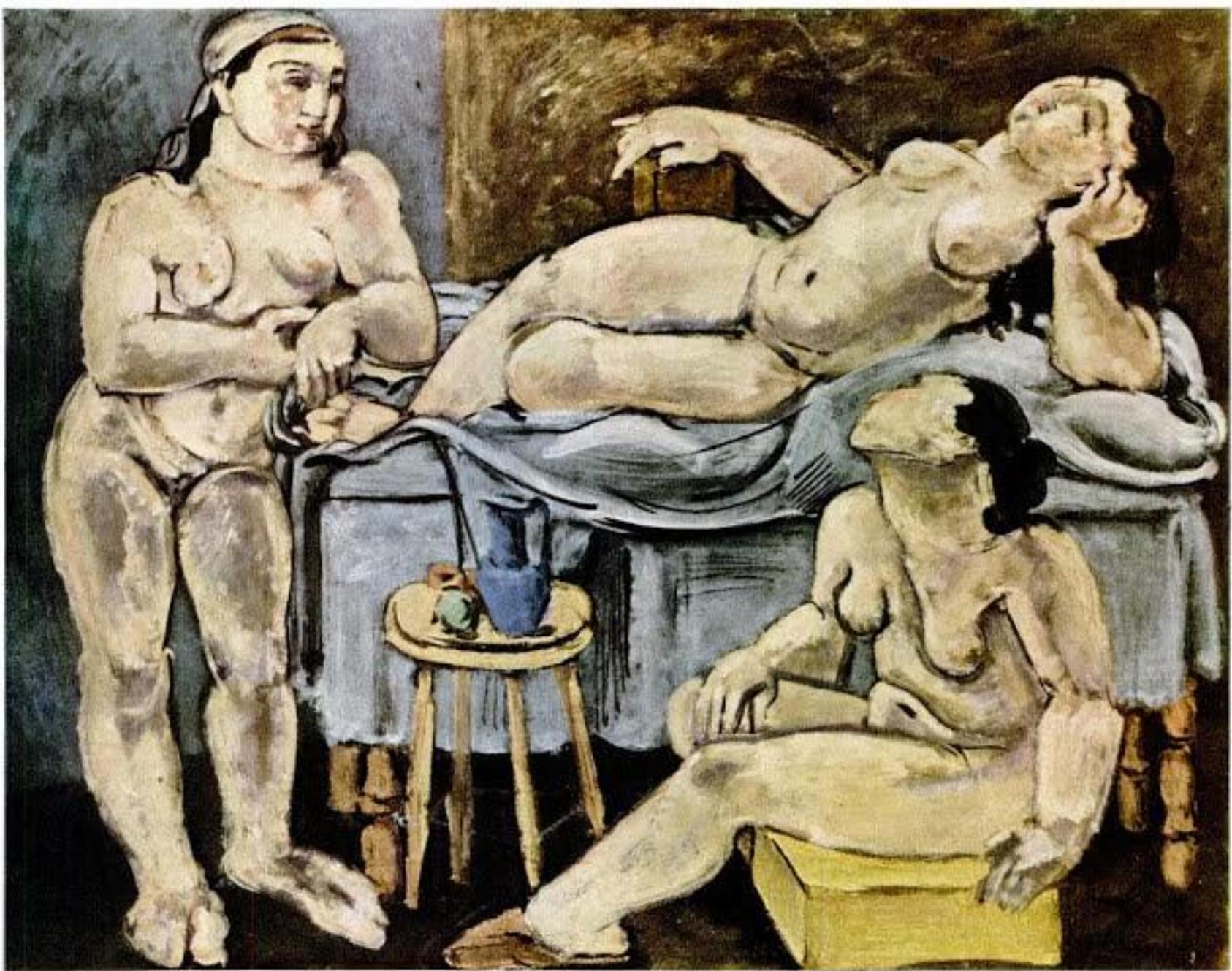
Weber is not a realistic painter, as the paintings reproduced on the following pages show. He does not copy nature. Like most great artists, he edits it, heightening certain salient features, simplifying and distorting others, until he has conveyed his own personal vision of the objects he contemplates. His pictures are remarkable for their sweeping draftsmanship, their subtle coloring and for the reverent, almost religious, intensity with which they depict their subjects. These subjects are usually big, monolithic female forms, sinewy trees, gaunt Jewish rabbis, muscular workmen, flowers or the familiar objects of the still life. He paints them all with an archaic grandeur that makes them seem like the grim visions of an Old Testament patriarch.

Weber's mental world

This faculty for endowing commonplace things with a queer Biblical dignity is something Max Weber comes by naturally. Physically he is a small, round, affable, white-haired man, not particularly different, except for an air of childlike enthusiasm, from hundreds of other residents of suburban Great Neck, N.Y. He lives with his attractive wife and daughter (a son is in the Army overseas) in a modest Spanish-style house that looks exactly like the other houses on the block. He is an orthodox Jew, a good family man and a friendly neighbor. But mentally Max Weber is Great Neck's leading anomaly. He might have been a great philosopher. Two volumes of published verse prove that he is a poet of distinction. He once gave up a promising career as a singer. He is a profound scholar in Hebrew, Russian and German literature. His conversation, when it is not about art, is usually concerned with profundities most people leave to philosophers and priests. He discusses God, destiny, the purpose of life as matter-of-factly as he would his evening dinner. He is continually probing the fundamentals of human behavior and fitting them into a serene, timeless world that is closer to ancient Chaldea than to Great Neck. It is a world where things like the culture of the Assyrians and the art of the Aztecs are as timely as, and ultimately more important than, the war against Japan. Max Weber appraises life with a long view. He can find beauty in a flower, a primitive African sculpture, a quotation

CONTINUED ON PAGE 87

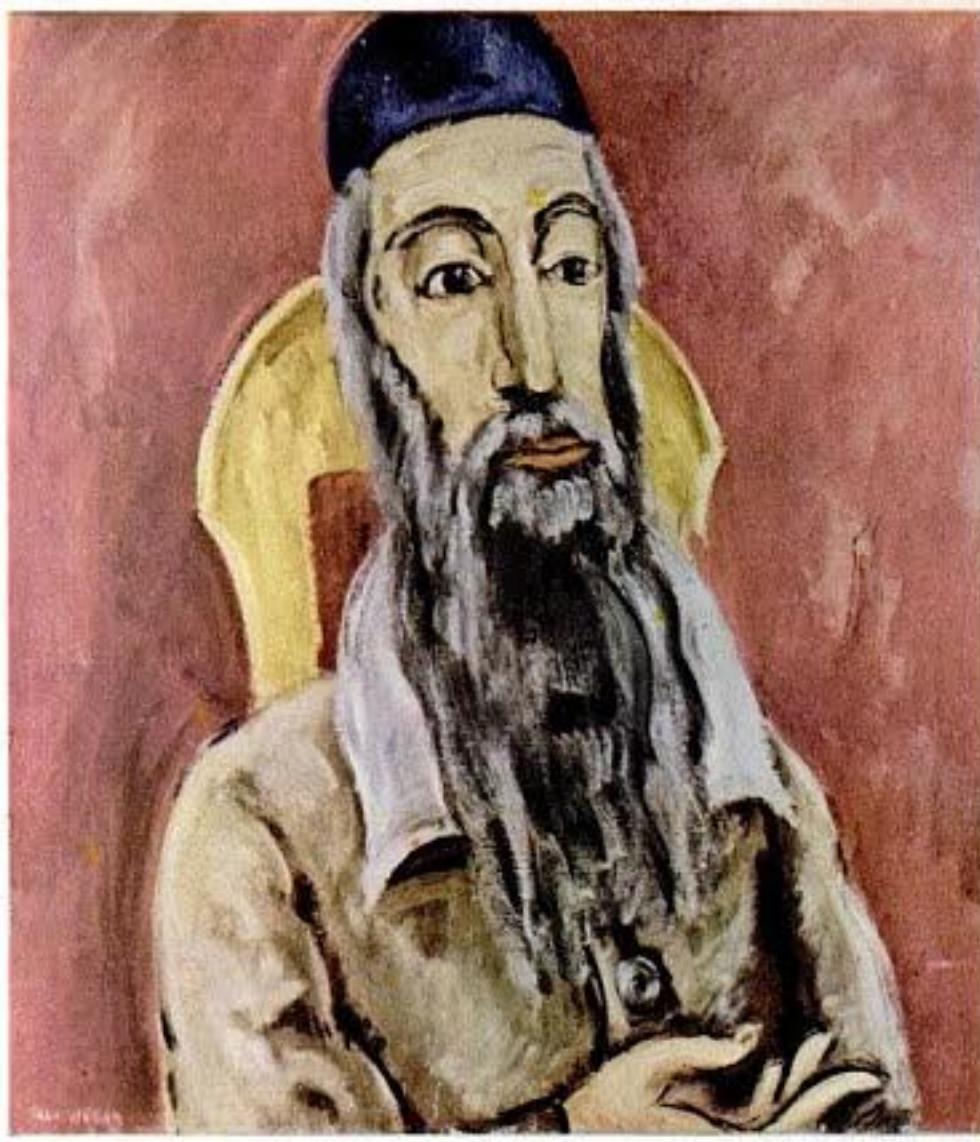
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TRANQUILLITY (above) shows the influence of Persian art, which Weber studied after absorbing French moderns. For seven years Weber made careful drawings of nudes. Then in 1928 he did this canvas from his imagination.

SEEKING WORK (below) was done in 1938 when Weber, brooding over the depression, temporarily abandoned painting pure esthetic forms, turned out this canvas of men gathered before a mill discussing possibility of getting jobs.





THE RABBI, says Weber, is his "symbol of spiritual leaders whose dignity, faith and moral conviction surmounted pain and bitterness throughout history." Weber painted it in 1934.

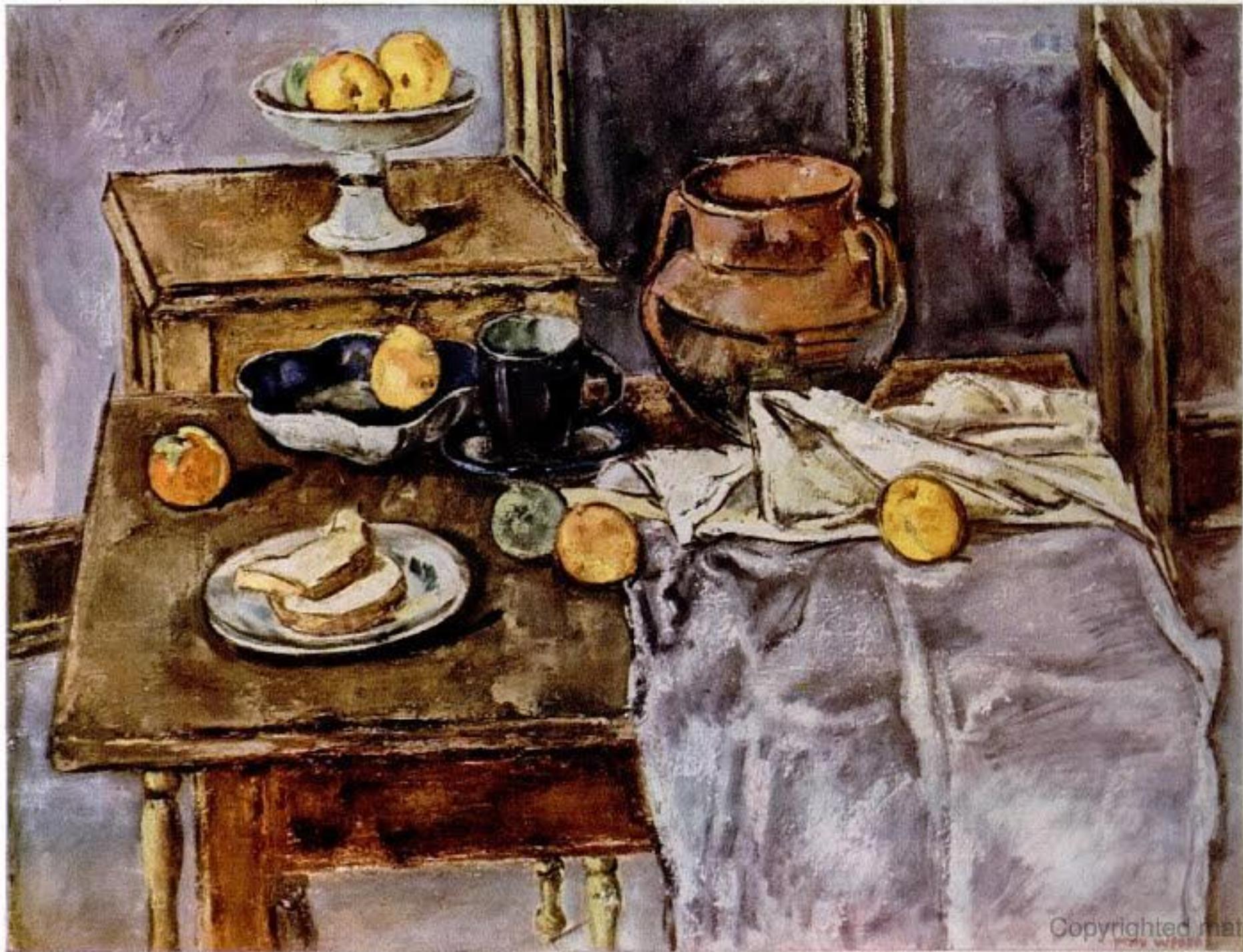
STILL LIFE WITH TWO TABLES was painted in 1930 after Weber had made a thorough study of Cézanne,

greatest of all French modern painters. By absorbing the principles of Cézanne's art, Weber developed his

own personal style of painting. He worked on this canvas so long that the bread came to look as hard as stone.



TWO MUSICIANS, done in 1917 after Weber had returned from Paris, is in style of modern artists like Picasso, who painted like this in his cubist period.



MAX WEBER CONTINUED

from Marcus Aurelius or a milk bottle, and where he finds it, he finds what to him is the goal of existence.

Max Weber's parents brought him to the U.S. from Bialystok, Russia in 1891 when he was 10 years old and sent him to high school in Brooklyn. After attending art school at Pratt Institute he spent several years teaching art in Lynchburg, Va. and Duluth, Minn. At the age of 24, having saved up about \$2,000, he went to Paris, then the center of the art world, to lead the life of an impoverished art student. By living with the utmost economy he managed to make his \$2,000 last three years. When he returned to the U.S. in 1909 he was wearing the same suit he went to Paris in. But the man inside it had changed. In Paris, Weber had started by mastering conventional academic drawing with an ease that surprised his teachers. But he had soon been drawn into the revolutionary modern art circles where Matisse and Picasso were making their first experiments. He became a profound student of Cézanne, greatest of the French post-Impressionists, and enjoyed the close friendship of the great primitive painter, Henri Rousseau. He went to Spain to study the strange shimmering canvases of El Greco. He haunted the museums, studying the art of the Egyptians, Assyrians, Persians and Chinese. He experimented with cubism, anticipating methods that were later exploited by Picasso. He became a master of oil painting, water color, gouache, woodblock. He was also an accomplished sculptor of semi-abstract figures (see below and page 84).

His first show drew catcalls

Back in the U.S. Weber became the bearer of a new artistic gospel. He was the first American modern painter. Fellow Americans, who were not yet acquainted with the canvases of Cézanne, Gauguin and van Gogh, hardly knew what to make of his vigorous distortions and cubistic abstractions. His first exhibition, in a room behind a Madison Avenue picture-frame shop in 1909, drew critical catcalls and resulted in few sales. Artists recognized his great gifts as a draftsman but could not understand his habit of distorting nature. Sticking to his guns, Weber lived in a small room, did his own cooking on a diminutive gas stove and continued to paint nature as he saw it. Years later, when modern art—good and bad—was a common commodity in the galleries of 57th Street, the art world found that Weber was right. Singlehandedly he had been modern art's American pioneer.

Today Weber regards his popularity with gratified surprise. "You know," he remarks with an incredulous shrug, "I really am an enormously successful painter." Success has not changed him. He still rises at 6 a.m., still makes his own breakfast coffee, still putters around making his own picture frames. His studio, built over the garage of his Great Neck home, is as neat as a surgeon's operating room. He spends from eight to ten hours a day working in it. He never paints from a model. His landscapes and figure paintings are all done from memory, assisted sometimes by rapidly scrawled pencil sketches that he makes during walks and at odd moments. In his scanty hours of relaxation he turns on the radio or sits quietly while his daughter Joy plays the piano. His favorite authors are Seneca, Marcus Aurelius and Emerson.

Despite his erudition and his metaphysical interests, Max Weber is neither pompous nor solemn. A rather shy, squirrel-like little man, he will belie his 64 years by literally dancing up and down with glee over some observation that has occurred to him or some detail of nature he has discovered. Friends have likened him to one of the laughing, potbellied porcelain sages that are sold in Chinese shops. The comparison is apt. In his timeless world of color and line, wise old Max Weber is probably one of the happiest men in America. He is fond of expressing his philosophy in succinct prose. "Culture," he says, "will come only when every man will know how to address himself to the inanimate, simple things of life. A pot, a cup, a piece of calico, a chair, a mantel, a frame, the binding of a book, the trimming of a dress. Culture will come only when people touch things with love and see them with a penetrating eye."



SLEEPING FIGURE



IN THEIR LIVING ROOM Mr. and Mrs. Weber spend many leisure moments listening to the playing of their 18-year-old daughter Joy, a gifted pianist. Weber's favorite perch is on staircase.

IN HIS STUDIO, which is maintained with spick-and-span orderliness, Weber works on a painting of a flute player. In background, supporting another canvas, is small easel he used in Paris.



Annapolis Ceremony FOR ANOTHER WOODBURY DEB

THEY MET: *A gay and beautiful deb—Martha Jane Barker of Philadelphia*

An Annapolis Midshipman—Robert Hall Merrick, Jr., U. S. N., of Boston

HE FELL: *For her fresh, June-day loveliness*

THEY WED: *In Naval Academy splendor!*



"House party week-ends I always tucked Woodbury Soap into my traveling case," says Martha. "Nothing like a Woodbury Facial Cocktail before a date! That lovely lather massage followed by clear warm water and cold . . . well, it's simply perfect for delicate skin like mine." (Naturally, Martha, Woodbury's made by skin scientists for the skin alone!)



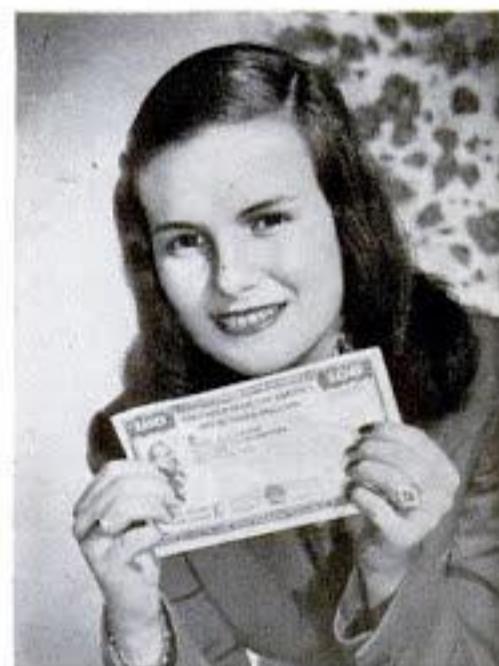
Two victories chalked up for Navy: That football score means Navy beat Army . . . that smile Bob's wearing means Martha said "yes". (Also chalked up: another romantic victory for a Woodbury Soap complexion!)



An aide at Devon Horse Show—for the benefit of nearby Bryn Mawr Hospital. "That was back when I was first dating," says Martha, "and learning the magic of the deb's daily Woodbury Facial Cocktail!"



Your skin is bound to be softer and brighter, too, when you use Woodbury Facial Soap. A special costly ingredient makes Woodbury extra mild and mellow. For a smooth, heading-for-a-hope-chest complexion, it's Woodbury!



"Paper Hope Chest", Martha calls the Bonds she's buying. "Best investment we can make," she says, "and it will help to bring him home sooner." Told you the marrying Woodbury Debs are smart! Buy Bonds! Buy Woodbury!



THIS IS URANIUM, A METAL HALF AGAIN AS HEAVY AS LEAD. FROM IT IS EXTRACTED ONE PER CENT OF UNSTABLE FORM U-235, STARTING POINT OF ATOMIC EXPLOSIVES

THE ATOMIC BOMB

ITS FIRST EXPLOSION OPENS A NEW ERA

Aug. 5, 1945 is the day men formally began a new epoch in their history. This is when they first used the force which binds the nucleus of the atom to do their work. The job happened to be the ending of the war between the United States and Japan, but this was pure coincidence. Even the appalling fact that some 100,000 Japanese had died seemed incidental to the fact—which touched the destiny of everyone alive—that a way had been found to release the forces which killed these 100,000.

The area of ideas where scientists worked to liberate the energy of the atomic nucleus was explored by the most powerful train of sheer intellect in the history of science (see pp. 94-95). Nobody has ever seen an atom. Yet scientists have defined it, predicted its behavior and even taken it apart using only fragmentary evidence.

The atom is a finite, measurable thing. It is composed of a heavy, dense nucleus surrounded by a vaporous cloud of electrons. The nucleus is one 2,500,

000,000,000th of an inch in diameter. The diameter of the electron cloud is one 250,000,000th of an inch. Between the nucleus and its outermost electrons there is a yawning distance 5,000 times the diameter of the nucleus. If the nucleus were as big as the earth, the distance to its farthest electron would be 150 times the difference between the earth and the moon.

In nature there are 92 different kinds of atoms. The lightest, hydrogen, has only one electron circulating around its nucleus. The heaviest, uranium, has 92. Between hydrogen and uranium are the 90 other elements. The number of their electrons determines their physical characteristics.

Electrons, however, are not the dominating force of the atom. Electrons may be stripped from their atoms—by heat, for instance. It is electrical charges in the nucleus which determine the number of electrons. It is in the nucleus that science has found the apocalyptic forces released over Hiroshima.

The nucleus of the atom is made up of particles called protons and neutrons. It has an essential stability. Its particles are far more difficult to tear loose than electrons. In fact, up to 1939 the most powerful atom-smashing machines could knock only a few particles out of a nucleus which might contain 200 of them. After a revolutionary new discovery, however (see pp. 88-89), scientists were able to split certain nuclei almost in two, turning a fraction of their matter into pure energy. In addition to releasing new forces, this provided another proof of the Einstein theory that matter is simply energy in another form.

Present process for releasing the power of the nucleus is still imperfect. It requires quantities of uranium, which is too costly to be practical for anything but wholesale destruction. But science has made the first step. Its history promises that in time the others will follow, releasing the energy of the atom's nucleus for driving automobiles and airplanes, doing useful things practical men still don't dare to dream about.



THIS IS DIAGRAMMATIC PICTURE OF URANIUM ATOM. RINGS ARE ORBITS OF WHIZZING ELECTRONS. NUCLEUS IN CENTER IS EXAGGERATED TO SHOW PROTONS AND NEUTRONS AS BALLS

NUCLEAR FISSION

**SPLITTING NUCLEUS
RELEASES ENORMOUS
AMOUNT OF ENERGY**

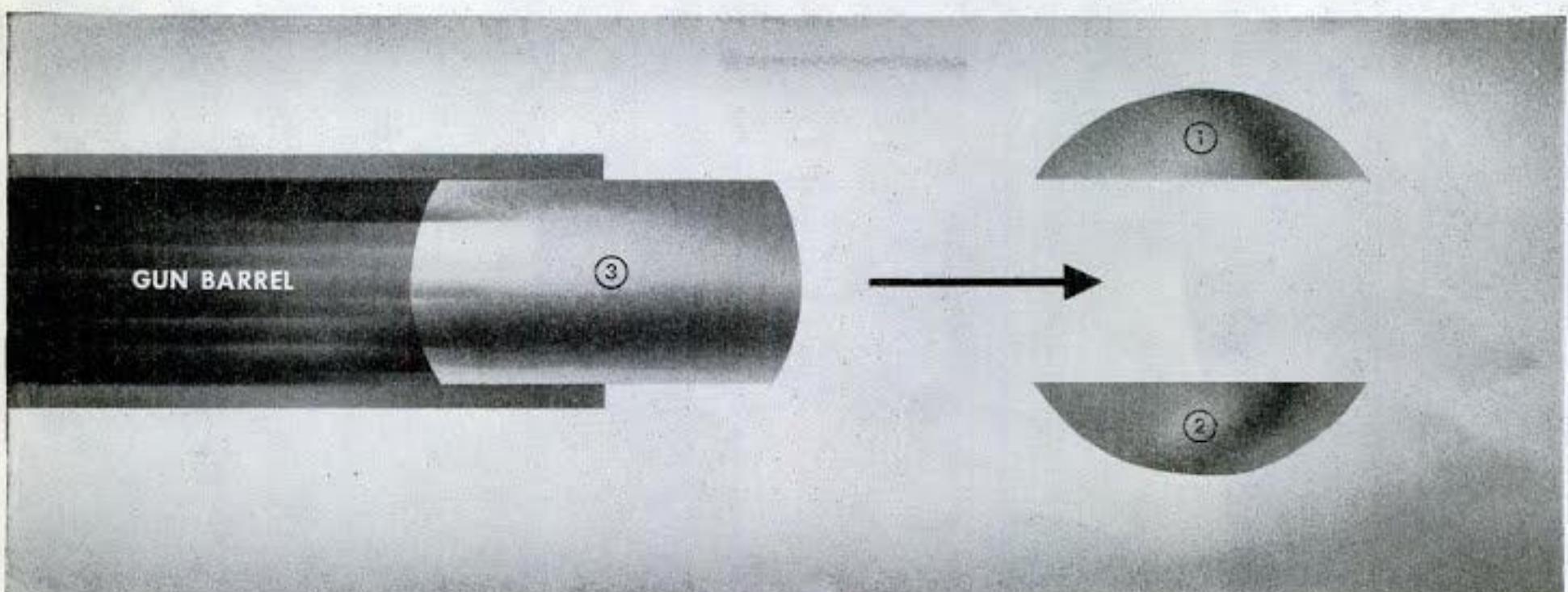
The uranium atom is the most complex of all atoms. It consists of 92 electrons, each with a charge of negative electricity, spinning in orbits around its tiny but heavy nucleus. The nucleus is made up of 92 positively charged protons plus 146 neutrons, which are electrically neutral. The forces holding these particles together in the nucleus are tremendously powerful. If the cohesive forces are overcome and the nucleus disrupted, part of the atom's mass is converted to energy and atomic explosion results.

If a uranium atom has 146 neutrons in its nucleus it is called U-238 (92 protons + 146 neutrons = 238). If it has 143 neutrons it is called U-235 (92 protons + 143 neutrons = 235). These slightly different forms of uranium are called isotopes. Just before the war it was discovered that U-235 could be split by adding to its nucleus a slow-moving neutron produced with the aid of radium or a cyclotron. An enormous release of energy resulted from the fission, or splitting—but

only on a small laboratory scale. The problem of attaining practical atomic power at that time seemed to be a matter of accumulating sufficient quantities of pure U-235—an almost impossible task in the light of then-known techniques.

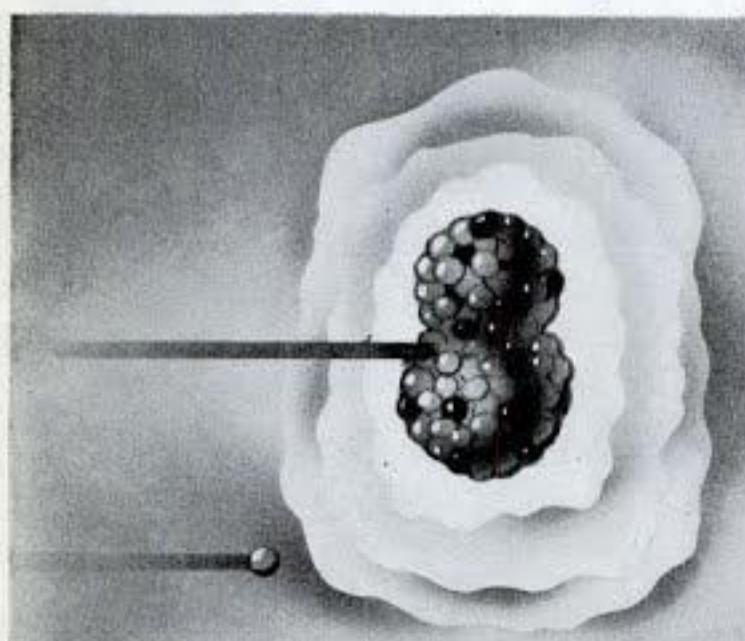
Last week the War Department announced that physicists of the atomic bomb project had produced an artificial element, plutonium, the end product of a reaction begun by bombarding U-238 with neutrons derived from the fission of U-235. This new element, easier to set off than U-235 and now made in quantity, is presumably a prime factor in the power of the atomic bomb. Plutonium, like U-235, is split by adding a neutron to its nucleus.

Mechanism of the bomb probably consists of bringing several pieces of plutonium or uranium isotope together instantaneously by mechanical means (*see opposite page*). Once enough pieces have been accumulated in a single "critical" mass, the bomb explodes.

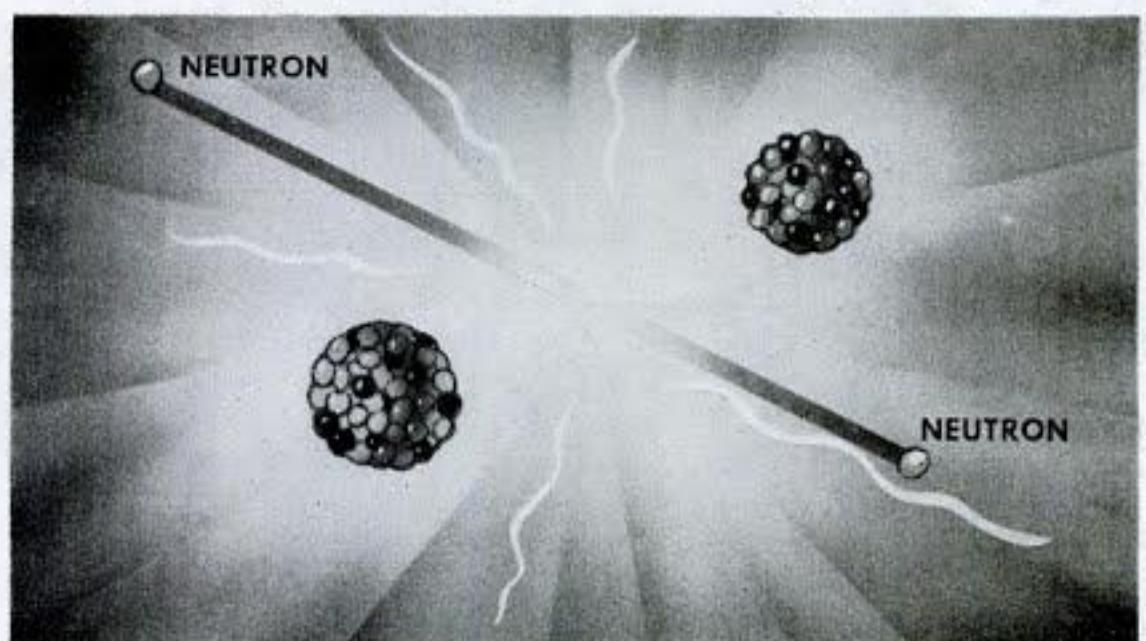


HOW BOMB MAY WORK is shown by this drawing. Pieces of Plutonium, 1, 2 and 3, taken individually are too small to detonate by themselves. Therefore bomb may be safely transported with charge divided into three parts. Bomb explodes when piece No. 3 is fired between pieces 1

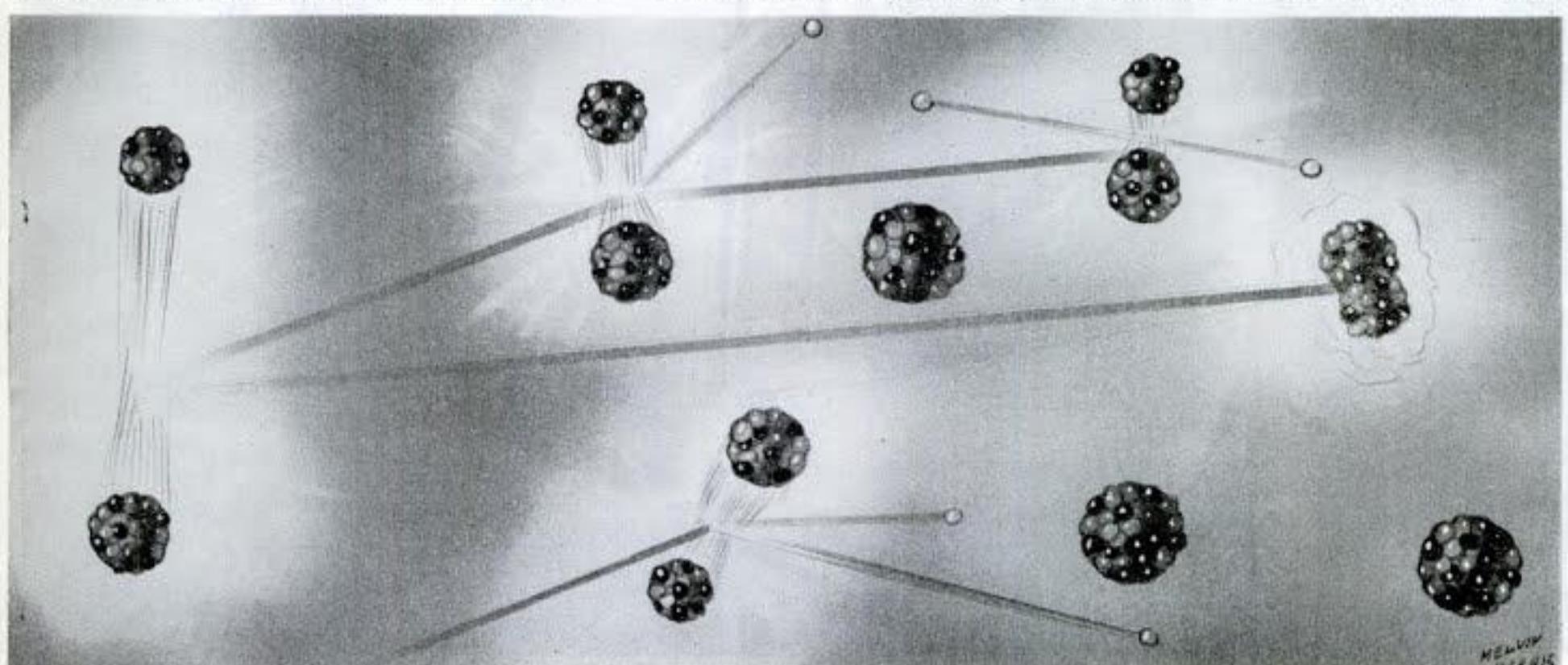
and 2. This unites all three pieces into a sphere of "critical mass" and the bomb detonates. Biggest problems in bomb research solved at New Mexico laboratory was to unite all three pieces quickly, and completely. Partial or slow union will produce weak explosion or a dud.



ATOMIC FISSION BEGINS when stray neutron enters the nucleus of a Plutonium atom. In this picture neutron has just entered nucleus. Forces inside nucleus are already seriously unbalanced and it is beginning to split in two.

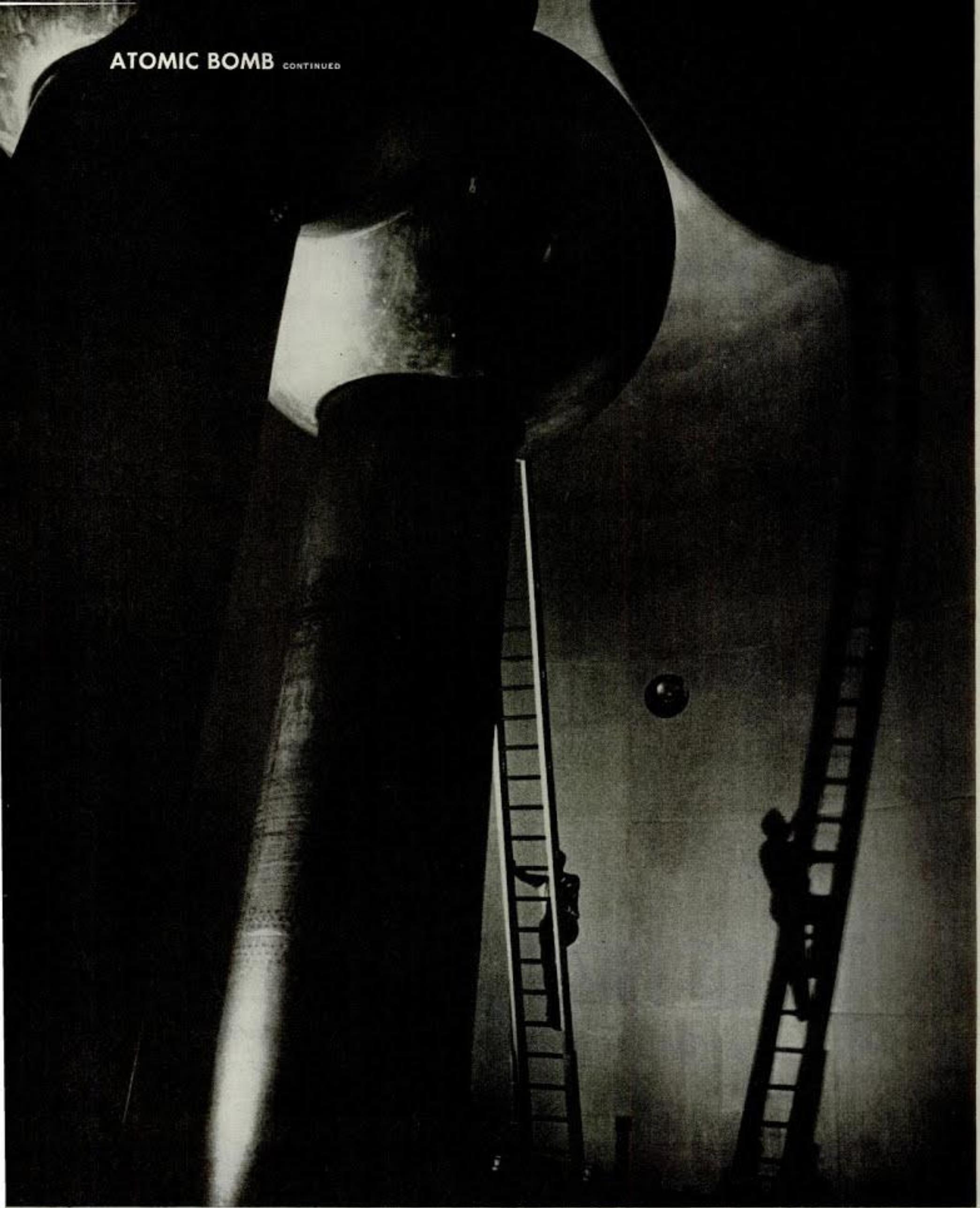


NUCLEUS HAS SPLIT into two parts. Total weight of parts is less than that of original nucleus. Difference in mass has been converted into millions of electron volts of energy. Fission also produces gamma radiation (wavy lines) and about two new neutrons which rush outward. Any which enter other nearby nuclei cause them to split.



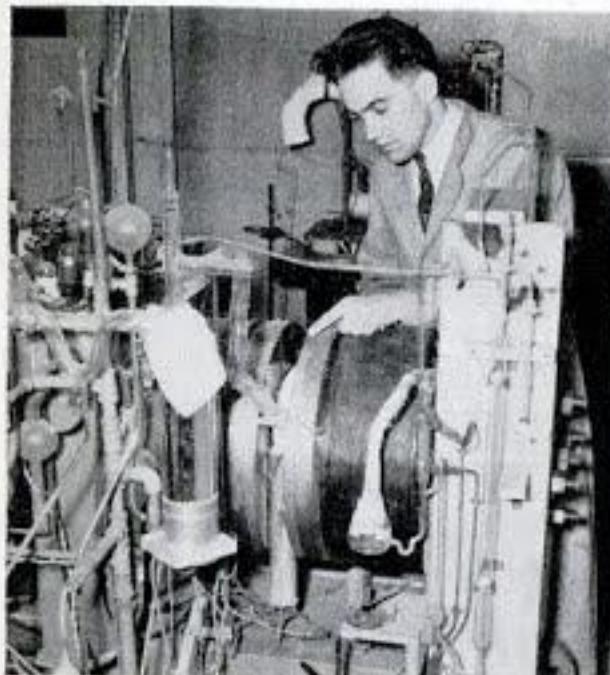
CHAIN REACTION starts when neutrons from original fission (left) create fission in other nuclei (right), these in turn produce more neutrons and more fissions until many nuclei in mass of Plutonium have split and enormous atomic explosion has occurred. When piece of Plutonium is small

(piece No. 1, top picture) so many neutrons escape into surrounding air chain reaction cannot take place. Such a chain reaction is necessary to the production of any appreciable amount of atomic power. Uranium and Plutonium are only elements likely to produce chain reaction.



ATOM-SMASHING MACHINE, the Van de Graaff generator, was designed at the Massachusetts Institute of Technology by R. J. Van de Graaff, a young electrical engineer and Rhodes scholar. Generators of this type and the cyclotron, both developed in the early 1930s, are designed

to accelerate particles to great speeds for atomic bombardments but they operate in different ways. The cyclotron whirls the particles in a magnetic field until they are fast enough to let go. The Van de Graaff generator propels them by sheer force of high-voltage electricity.



DR. A. O. NIER ISOLATED U-235 IN MASS SPECTROMETER

MANY YEARS OF ATOM SMASHING PRECEDED BOMB

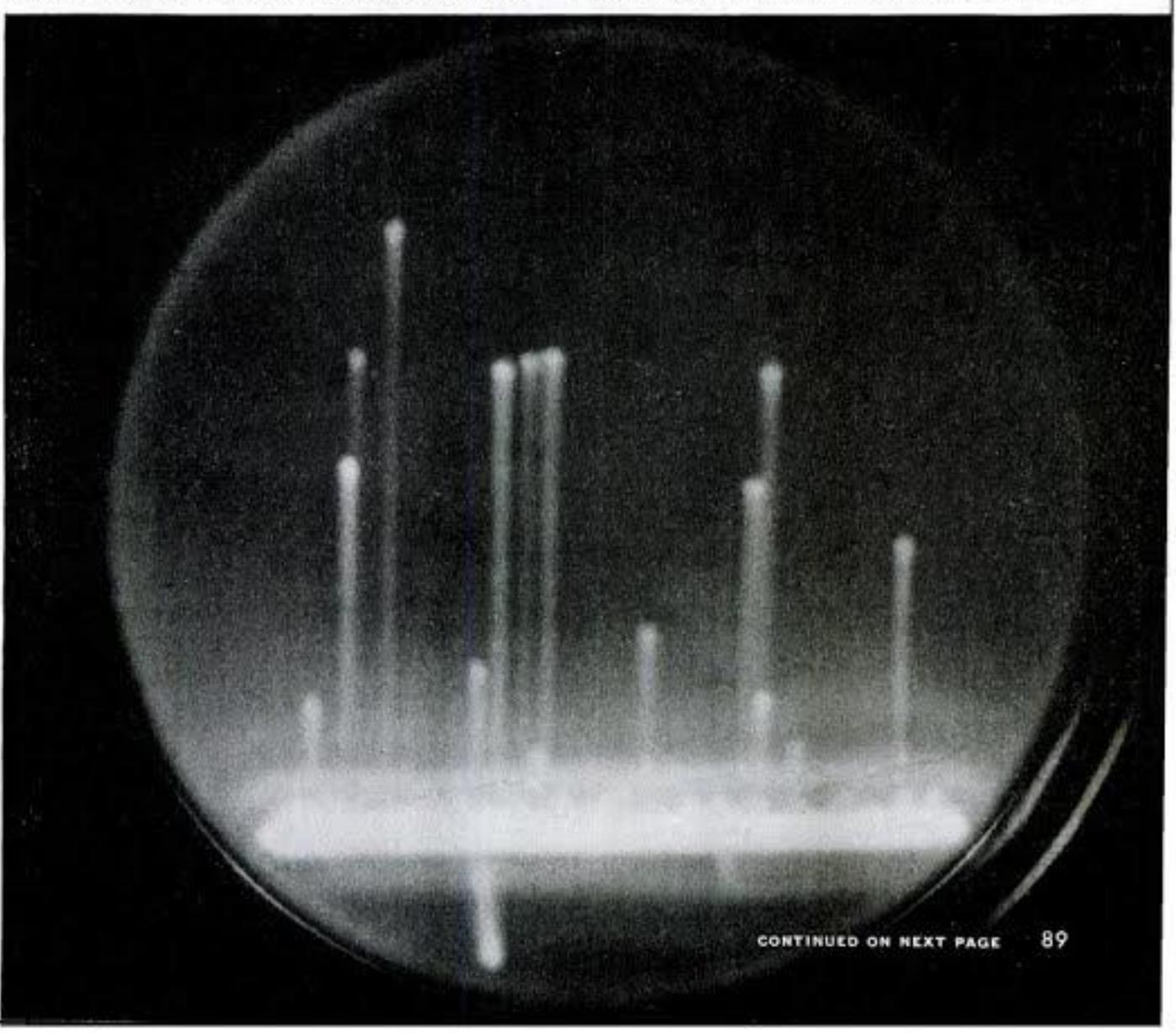
In the years since the last war, scientists have gotten most of their information about the atom by taking it apart. Some of their best work has been done by using massive machines like the cyclotron (right) or the Van de Graaff generator (opposite page), both of which accelerate parts of atoms to enormous speeds so they can be used to bombard other atoms. Ironically, neither the cyclotron nor the Van de Graaff generator was finally necessary to split the nucleus of uranium. All that was needed was a little piece of radium, a plate of the light metal beryllium and some paraffin. By using these big machines, however, scientists were able to learn much about the structure of the atom and prepare the way for research which led to the atomic bomb.

The chain of logic which led directly to the bomb was put together by scientists of many countries. In 1932 Sir James Chadwick, an Englishman, proved the existence of a new atomic particle which was neither positive nor negative, but neutral. Two years later the French couple Irène Joliot-Curie and Jean Frédéric Joliot found that certain elements could be made artificially radioactive, i.e., they gave off particles and radiation like natural radium. A few months later Dr. Enrico Fermi of the University of Rome produced the same effect in uranium by bombarding it with Chadwick's neutrons, producing what he thought was a new element heavier than uranium. German and French scientists then repeated Fermi's experiment. The German group was puzzled by the appearance of barium, an element which is much lighter than uranium. One of them, Dr. Lise Meitner, was exiled from Germany because of her Jewish ancestry. In Copenhagen, working with Dr. O. R. Frisch, she came to the conclusion that the neutron bombardment of uranium was not producing a new element at all, but that it was splitting the uranium nucleus in two, producing barium and other elements. Later Dr. Niels Bohr, the great Danish physicist who was then in the U. S., propounded the theory that the most easily split nuclei were not those of ordinary uranium but of the rare isotope U-235. When U-235 was isolated in 1939 a group of U. S. scientists at Columbia University, assisted by Fermi, who now was also in the U. S., produced the miniature yet enormous discharges of energy shown at the right.



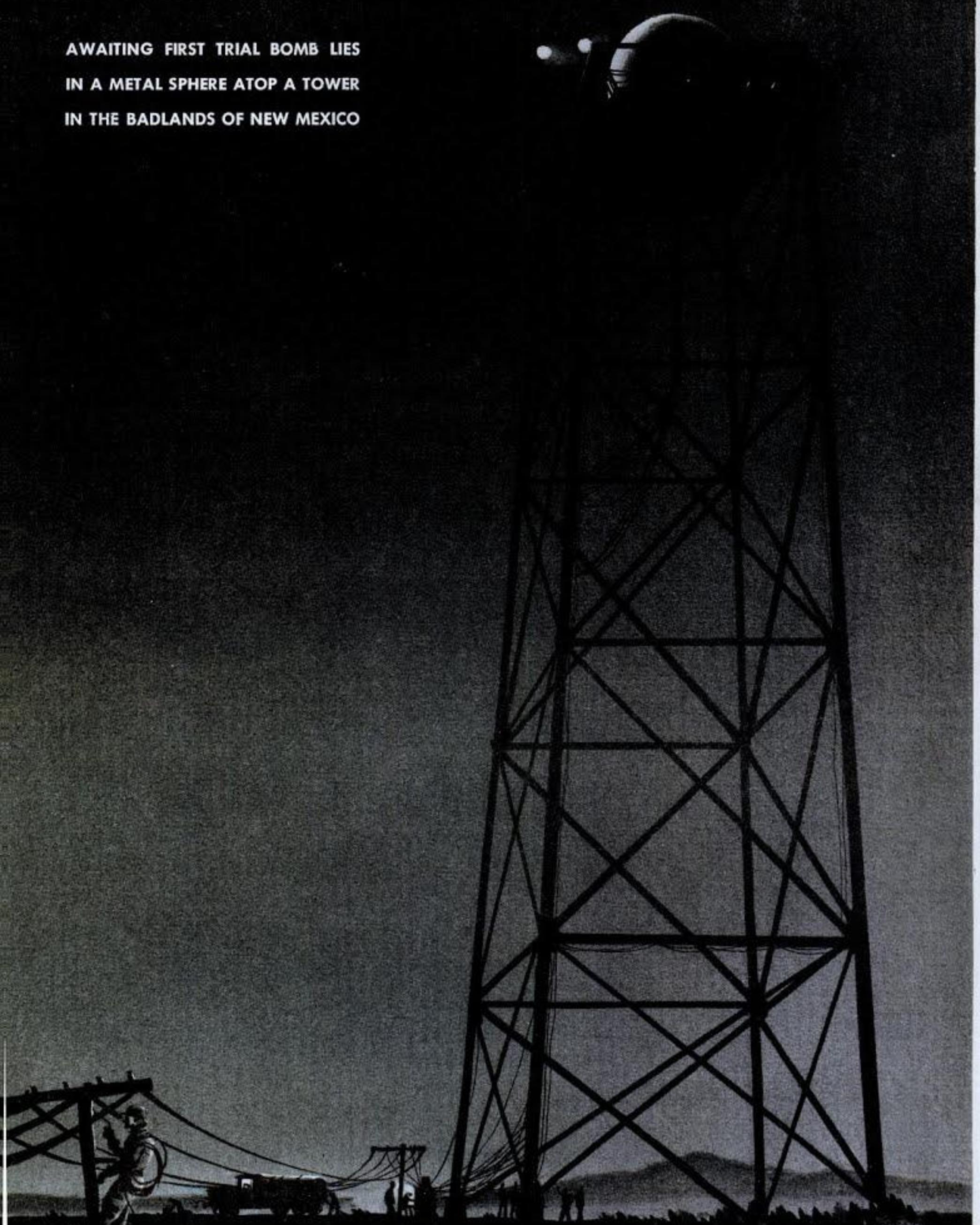
ATOM-SPLITTING history was made in 1939 when John R. Dunning (right) and Enrico Fermi (center) aided by D. P. Mitchell (left) split U-235 with the Columbia University cyclotron.

Below is a photograph which recorded a moment of atom history. The voltage indicator registers high peaks of 200,000-000 electron volts discharged at the splitting of U-235 atoms



ATOMIC BOMB CONTINUED

**AWAITING FIRST TRIAL BOMB LIES
IN A METAL SPHERE ATOP A TOWER
IN THE BADLANDS OF NEW MEXICO**





AS THE TEST BOMB EXPLODES, SCIENTISTS AND WORKMEN CROUCH TEN MILES AWAY FROM HUNDRED-FOOT TOWER (OPPOSITE PAGE) WITH THEIR BACKS TO THE BLINDING FLASH

MANHATTAN PROJECT

ITS SCIENTISTS HAVE HARNESSSED NATURE'S BASIC FORCE

By FRANCIS SILL WICKWARE

In the wet blackness before dawn the tall steel tower was invisible. It stood lonely and inert in a flinty wasteland studded with rugged mountains. For dozens of miles there was nothing to be called a town and scarcely a human habitation. In this emptiness of southern New Mexico the hundred-foot structure with the big black ball cradled at its apex seemed curiously out of place. Scores of wires and cables trailed down the framework to a master switchboard near the base and from there undulated away into the darkness. Thousands of yards distant they terminated in a stout timber hut nearly buried in the ground and built behind a massive earthwork bunker. Strangely shaped antennae projected above this bunker and the hut was filled with a confusing assortment of panels, dials, switches and intricately wired apparatus. Before instruments men—some in uniform, some not—waited and watched.

It was nearly 5:30 in the morning. An unseasonable storm had delayed the scheduled time of the test an agonizing 90 minutes. There was intermittent thunder; lightning flashed across the bleak landscape; gusts of rain fell. Over the interconnecting loudspeaker system the voice of the time announcer sounded at the observation stations like an oracle calling the end of the world. "Minus 20 . . . minus 15 . . . minus ten . . . minus five . . ." And in the minds of the anxious persons gathered that stormy morning on that outlandish terrain there was the thought that zero hour might indeed see the end of one world and the birth of a new one. For in the massive ball on

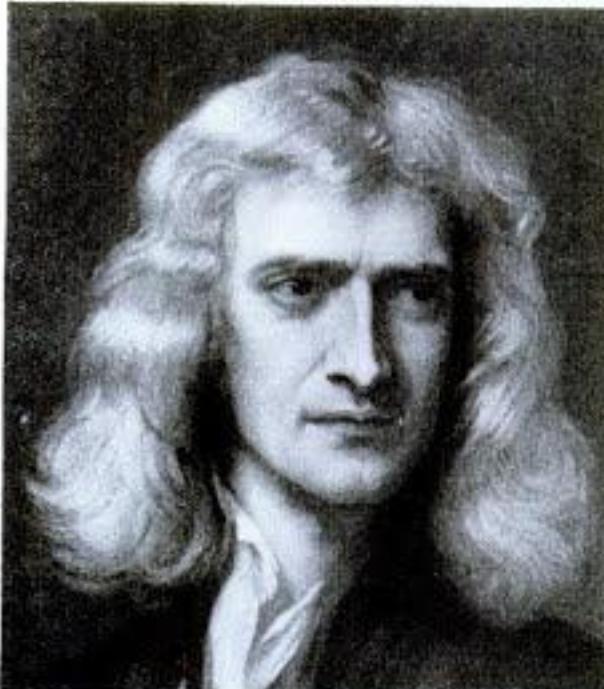
top of the steel tower there rested, perhaps, the answer to centuries of wonder and speculation which man had experienced since he first contemplated the sun and the stars. Here was the end result of the boldest, most dramatic scientific venture in history. Here was the top supersecret of the war, the prize at the end of a death race between nations, the object of the wildest political melodrama.

Although many of the witnesses were highly articulate, no one really could describe what happened at 5:30 a.m., July 16, 1945 on the wastelands of the Alamogordo Air Base, 120 miles southeast of Albuquerque, N. Mex. It was a phenomenon unique in human experience. There was an explosion with three phases—first, a light of unearthly brilliance and unearthly heat; second, a violent pressure wave; third, a sustained, awesome, roaring sound. The light, however, was so spectacular that observers were too stunned to pay much attention to the air blast and the sound. "Many times brighter than the midday sun"; "a mountain range three miles from the observation point stood out in bold relief"; "lighting effects beggared description" were a few of the impressions they could frame in words. A huge fiery cloud of many colors rushed 40,000 feet upward, burning away the overcast until it was scattered by the winds of the stratosphere. Six miles from the tower, it was reported an observer who had the temerity to face the explosion suffered temporary blindness and permanent damage to his vision, although he was equipped, like the



SHORTLY AFTER THE EXPLOSION a pillar of swirling particles rises 40,000 feet from the ground and blossoms out at the top.

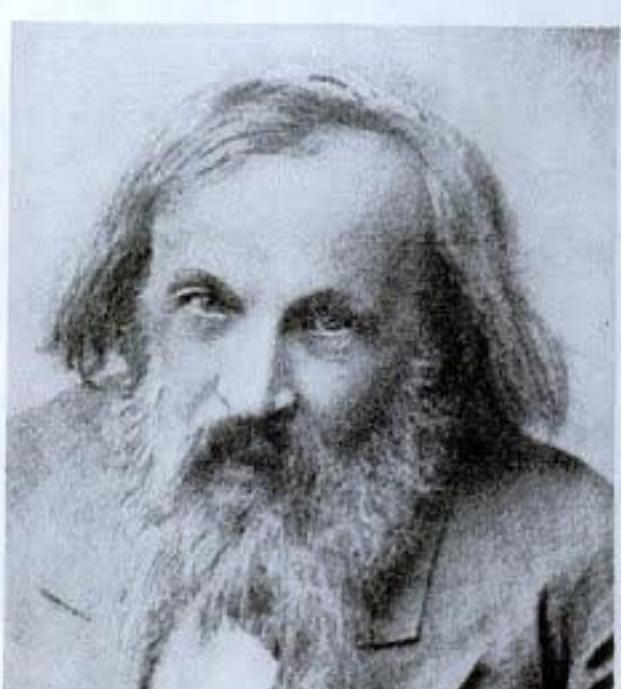
FOR CENTURIES SCIENTISTS HAVE WORKED



SIR ISAAC NEWTON (1642-1727), English, defined fundamental laws of motion ruling atoms as well as larger bodies, revived "atomic theory" that everything is made of tiny particles.



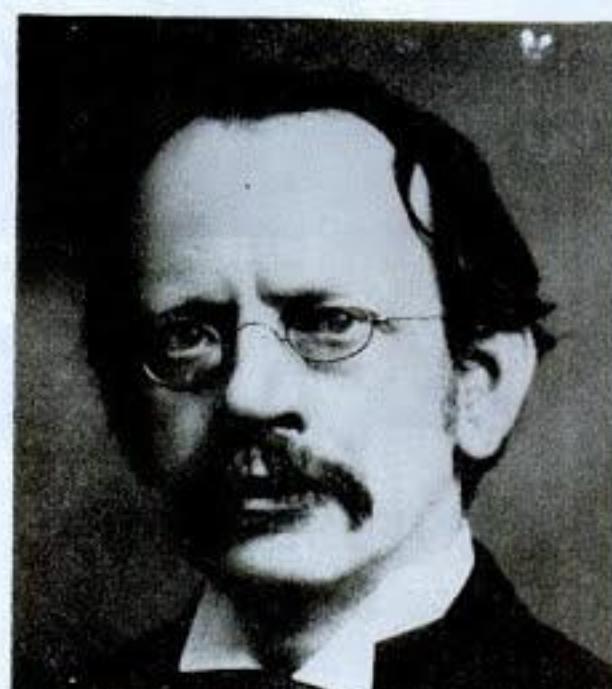
JOHN DALTON (1776-1844), English, converted the vague atomic theory into a scientific asset by atomic weights concept — giving each element a weight, starting with hydrogen's 1.



DMITRI MENDELYEEV (1834-1907), Russian, made the Periodic Table in which the 92 known elements, arranged according to their atomic weights, show a periodic change of properties.



ANTOINE HENRI BECQUEREL (1852-1908), French, while studying X-rays, found by accident that uranium emits invisible radiation and thus, in 1896, discovered radioactivity's existence.



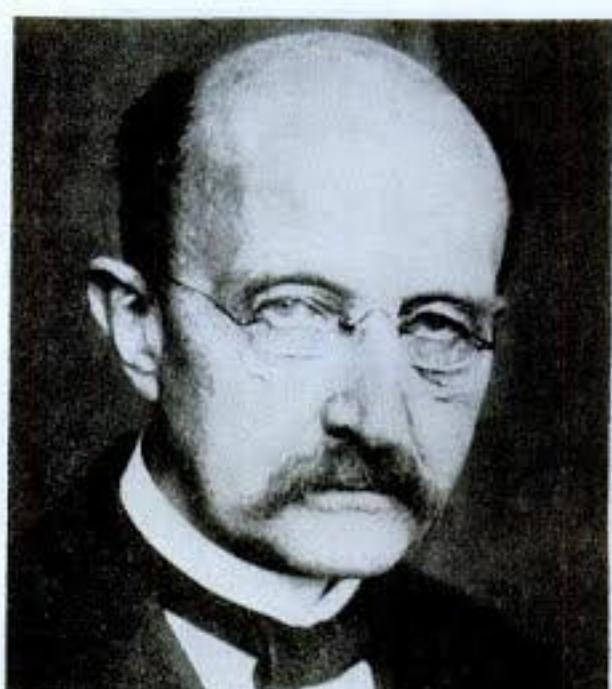
SIR JOSEPH JOHN THOMSON (1856-1940), English, discovered that atoms, which have a neutral charge, contain negatively charged "corpuscles." Later these came to be called "electrons."



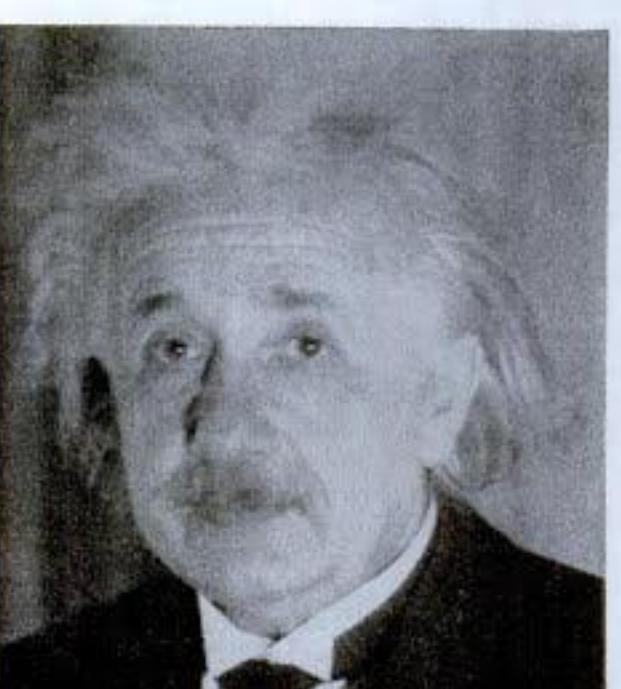
LORD ERNEST RUTHERFORD (1871-1937), English, discovered nucleus of atom and first changed one atom into another. However, his transmutations could not be used to produce power.



PIERRE AND MARIE CURIE (1859-1906), (1867-1934), isolated radium and in their studies ascertained that, like uranium, other elements decompose when radioactive rays are emitted.



MAX PLANCK (b. 1858), German, originated the "quantum theory": that energy of radiation is not continuous but exists in small, exact units measured in terms called "quanta."

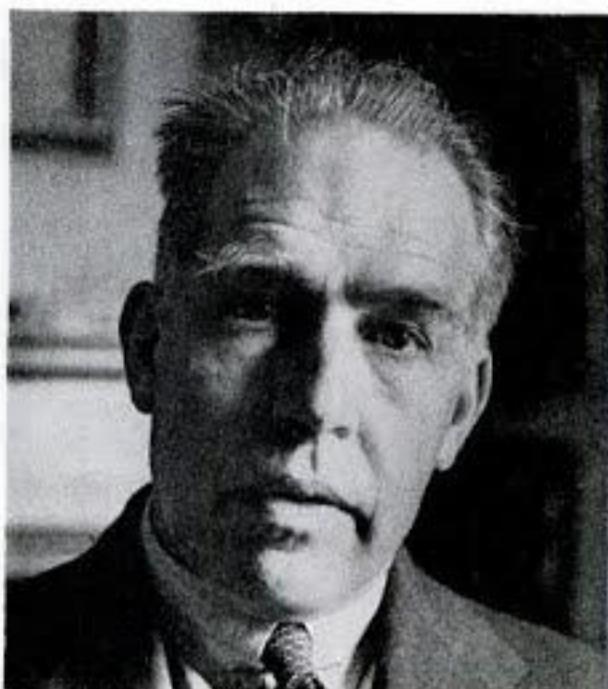


ALBERT EINSTEIN (b. 1879), German, evolved in a paper on relativity that mass can be converted into energy so completely that no trace is left. Atomic bomb proves truth of theory.

TO KNOW THE ATOM AND RELEASE ITS POWER



SIR JAMES CHADWICK (b. 1879) discovered the existence of neutrons, the electrically neutral charges found in nucleus of atom. He heads a British delegation on the atomic bomb.



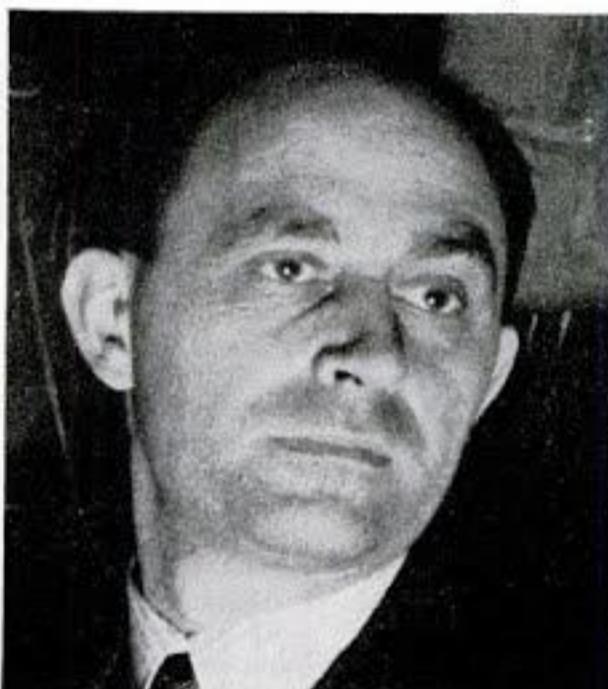
NIELS BOHR (b. 1885), Danish, applied Planck's quantum theory to structure of the atom, formulated basic theory of atomic structure—a nucleus with electrons revolving in orbits.



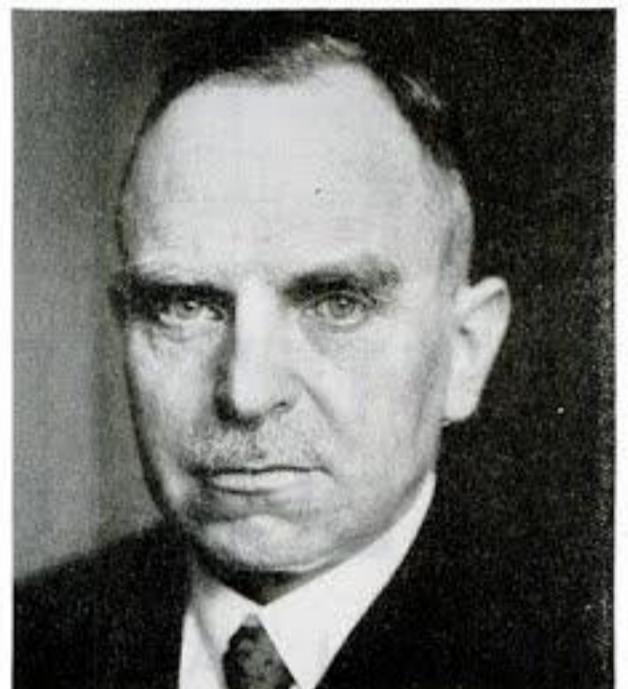
H. G. J. MOSELEY (1887-1915), English, probed the atom with X-rays and found each element had a definite atomic number which defined its place in Mendelyeef's Periodic Table.



IRÈNE AND FREDERIC JOLIOT (b. 1897 and 1900), French, discovered artificial radioactivity and, at same time as Meitner, uranium fission. Irène Joliot-Curie is daughter of Curies.



ENRICO FERMI (b. 1901), Italian, bombarded uranium with neutrons, thus making new artificially radioactive atoms, which, after uranium was split, were found to be products of fission.



OTTO HAHN (b. 1879), German, found one of elements resulting from Fermi's work to be a lighter element, barium, did not realize that he had produced fission, i.e. split the atom.



LISE MEITNER (b. 1878), Hahn's associate, realized the implications of his work. She carried out the historic experiment of splitting the atom so that unheard-of energy was released.



ERNEST ORLANDO LAWRENCE (b. 1901), American, invented cyclotron, high-powered atom smasher, and brought engineering knowledge to bear on problems of the atomic bomb.



J. ROBERT OPPENHEIMER (b. 1904), American, brilliant theoretical physicist, directed atomic bomb research at Los Alamos, N. Mex. He supervised experiments which led to bomb



HUGE PLANT AT THE OAK RIDGE HEADQUARTERS FOR THE \$2 BILLION U. S. ATOM-HARNESSING PROJECT STANDS IN WHAT WAS RECENTLY FARM AND FOREST COUNTRY. THE LOOK OF

MYSTERY TOWN CRADLED BOMB

75,000 IN OAK RIDGE, TENN.
WORKED HARD AND WONDERED
LONG ABOUT THEIR SECRET JOB

SIGNS point the way to the town proper (right) and to the huge West Oak Ridge plant (at top of page). Even residents, already carefully investigated, were barred from plant areas.

The city that history will know as the cradle of the atomic bomb did not even exist three years ago. In 1941 Oak Ridge, Tenn., was just one more pine and oak-stippled rise among the sleepy hills near Knoxville. From the 92 square miles surrounding it tight-lipped federal officials began clearing its sparse population—3,750 wondering hill folk. No one knew why. Mysterious and enormous construction projects began—purpose unknown. On July 3, 1943 the first family moved into Oak Ridge's first home, a trailer. Then the miracles began.

Dormitories housing 13,000, barracks for 16,000, homes and apartments with 10,000 living units, ten schools, a hospital shot up. So did 17 restaurants and lunchrooms, 13 supermarkets, seven theaters. So did more plants, carefully placed so that no one of them was in sight of another. Into them untold tons of material disappeared. A 300-mile network of roads and 55 miles of railroad track spread over the "reservation." One morning, when a woman resident inquired, town officials told her they did not plan to build a road in front of her home. That afternoon she telephoned them, "That road you weren't going to build—well, they're driving on it now." In 36

SERVICES catering to all the needs of a modern American city had to be established in Oak Ridge. They included cleaners, repairmen, department stores, bus stations and even a Fuller Brush man.





OAK RIDGE'S CONCRETE, FORTRESSLIKE, ALMOST WINDOWLESS PLANTS, SURROUNDED BY GUARDS AND FENCES, ADDED TO AIR OF MYSTERY WHICH WALLED IN WHOLE DEVELOPMENT

months the scrubby ridge, populated by nearly 75,000, became Tennessee's fifth largest city, bustling and busily at work.

But busy at what almost no one knew, particularly the people who were busy. Construction workers by the thousands came, labored and, sworn to secrecy, departed silently. Names famous the world over arrived anonymously, advised and departed like shadows. Guardedly—for over their heads there always hung the threat of ten years in prison or a \$10,000 fine—Oak Ridge's laboratory men, clerks, stenographers and scientists probed each others' information without result. Supremely careful planning had compartmentalized work and therefore knowledge.

Some 24,000 workers in two smaller "hidden cities" in New Mexico and Washington, also assigned blindly to the project, underwent similar frustration. But aside from this maddening circumstance of working hard at something that was assuredly tremendous but completely unknown, life in this American Tibet was pleasant enough. A government-sponsored, non-profit corporation administered utilities and business establishments. The thousands of newcomers drawn from every part of the country found or

set up facilities for every sport, a 9,400-volume library, a singing society, symphony, artists' society, little theater (besides the movies), services for 17 religious denominations, many shops. Maid service was available and hostesses familiarized newcomers with the old regimen.

This included rules which drove nearby Knoxvillians frantic with curiosity. Outsiders were admitted to the reservation only when a resident obtained a pass for them. Residents' cameras and arms all were registered. Identification badges had to be worn at all times. Residents returning to the reservation were searched for firearms. Everywhere were signs cautioning secrecy. To the curious, question-asking outside world Oak Ridge presented a united front. "We're making the fronts of horses," it explained. "We ship them to Washington, D.C. for final assembly." Occasionally there were spy scares and some suspects were arrested in Knoxville. Otherwise Oak Ridge labored on in hope and ignorance.

Last week the hope was justified and the ignorance ended. From newspapers for which they gladly paid \$1 each, the residents of Oak Ridge learned that they had helped foment one of the great revolutions of human society.

JACKSON SQUARE, a huge three-sided pavilion lined with shops, is main shopping center. Residents called their town, officially Manhattan Engineer District, "Dogpatch," lived, dressed informally.

SECURITY was stressed constantly by signs like this. So stringent were the regulations, that one incoming higher-up had a straight razor taken from him during the arms search.





RADAR OPERATOR in a U.S. bomber looks into a small, round, luminous screen to see a hazy tracing of the ground passing below. The bright line on the radar screen is a rotating scan-

ner beam. The scanner beam, synchronized with a rotating antenna which bounces ultrashort radio waves from a great circle of terrain beneath the plane, paints luminous picture on screen.

RADAR

ANOTHER OF THE WAR'S GREAT SECRET WEAPONS IS REVEALED

As many of the war's big secrets became public property, one of the biggest finally came through the veil of military security. This was radar, the method of extending human vision by the use of radio waves. Beside the cosmic excitement of the news about the atomic bomb, the radar news paled. "Radar," said one scientist, "now has all the glamour of the oxcart."

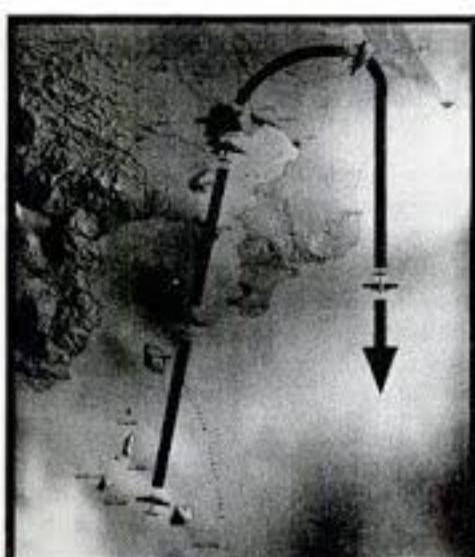
But radar had been a revolutionary weapon almost

since the beginning of the war. The British used it to warn their failing force of fighter planes when German bombers approached in the Battle of Britain. The U.S. was forewarned against Pearl Harbor by it, although nobody heeded Radar Operator Joseph L. Lockard's report that unidentified planes were flying toward the naval base. The Germans and the Japanese also used radar, although neither of them developed it to as high

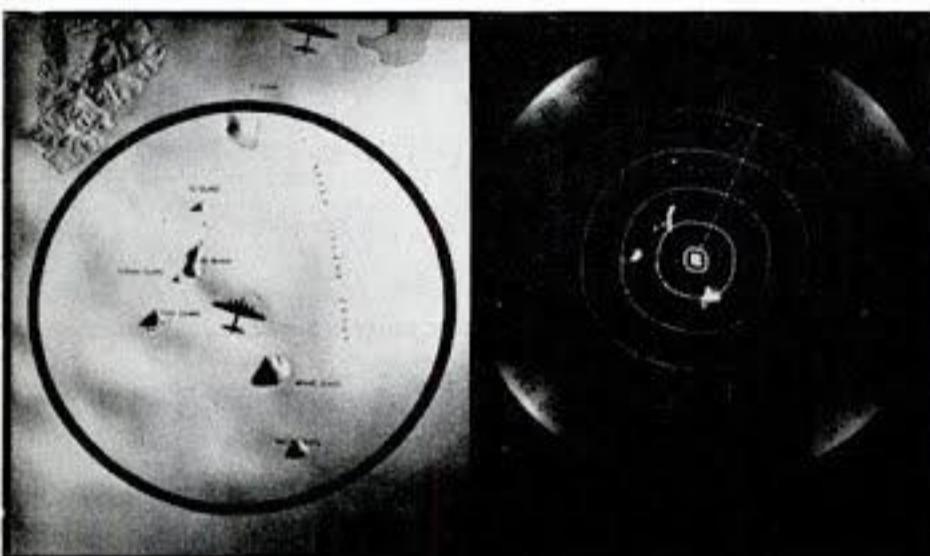
a degree as the Allies. Radar was pitted against radar in many of the war's campaigns, and superior Allied radar was one of the reasons the Allies won them.

Radar's peacetime future is assured, but its applications will probably be more limited than they have been in war. Radar is peculiarly suited to war's continuous emergencies. Most likely peacetime use: to navigate ships and planes through darkness and bad weather.

B-29 FLIES A SAMPLE MISSION WITH RADAR



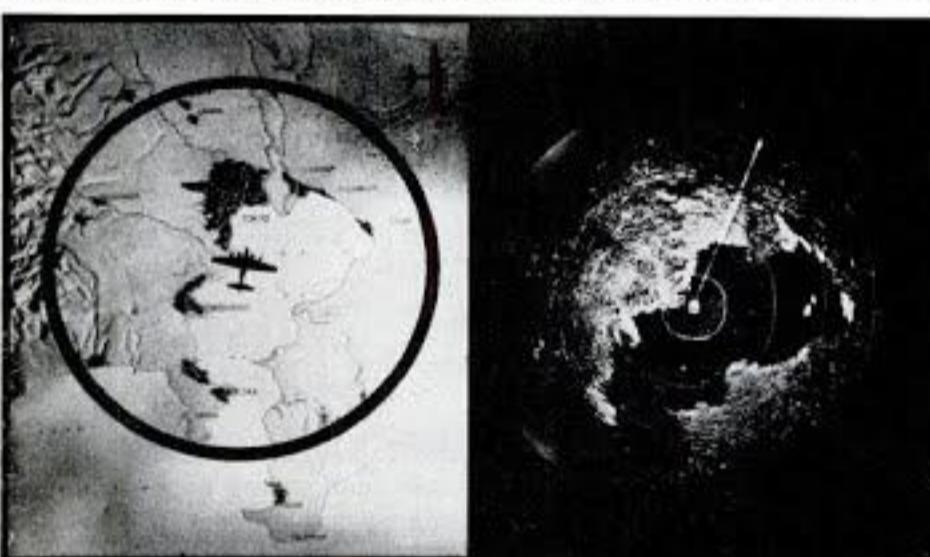
ENTIRE COURSE of the B-29's mission to Tokyo mapped above is shown in stages below.



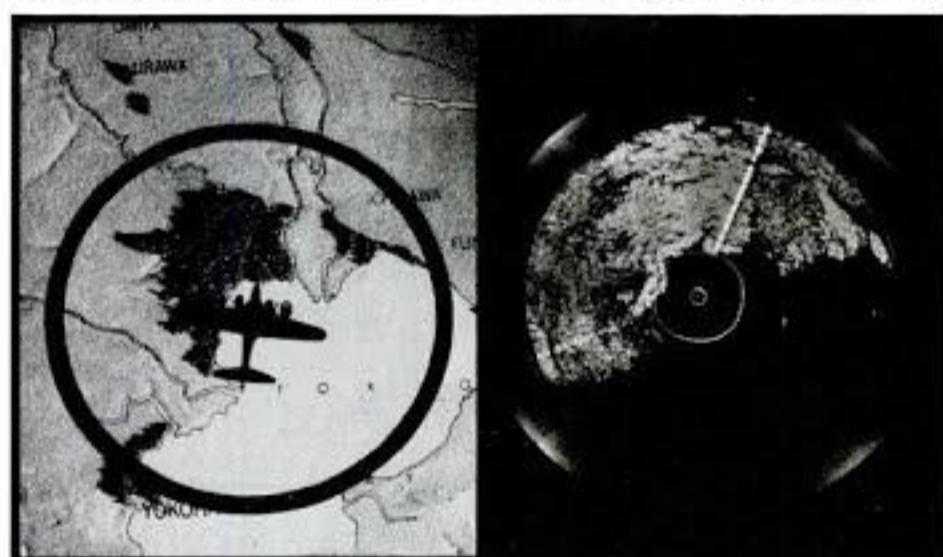
B-29 FLIES over Japanese islands used for navigation check points. Above left is relief map of area. At right is 'scope picture which shows what radar operator sees, even through clouds.



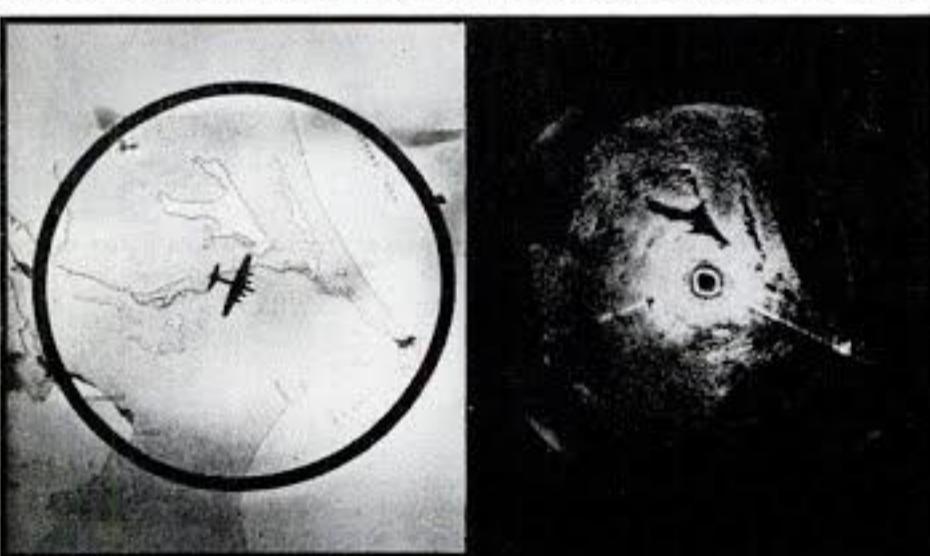
APPROACHING TOKYO BAY, Japanese headlands are clearly etched in 'scope. Rings are five-mile range marks. Bright line at top indicates course plane flies. Top of 'scope is north.



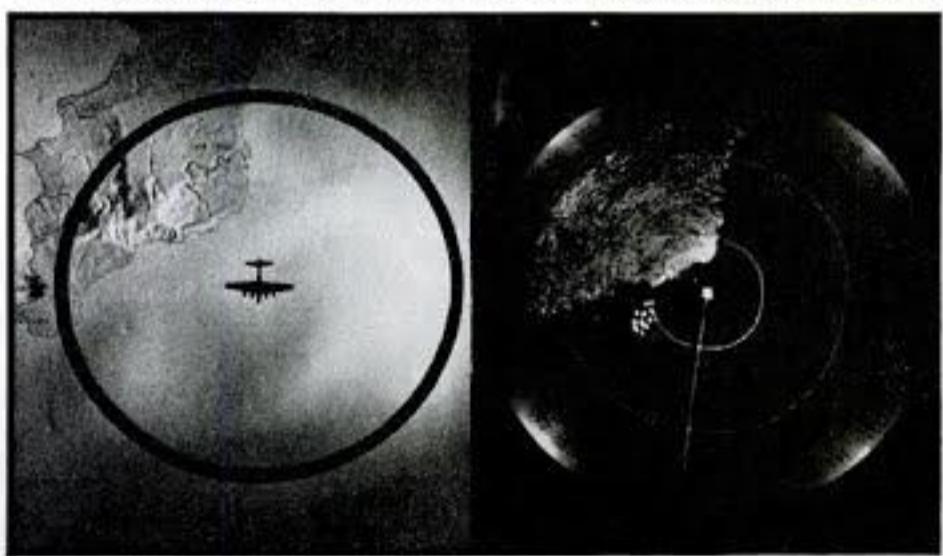
NEARING TOKYO, cities around bay appear as areas brighter than surrounding country. Scale of the 'scope picture has been enlarged so that range rings mark it at ten-mile intervals.



AT BOMB RELEASE POINT 'scope picture is changed again so bombing circle appears. When intersection of course line and circle crosses Tokyo waterfront, the bombs are dropped.



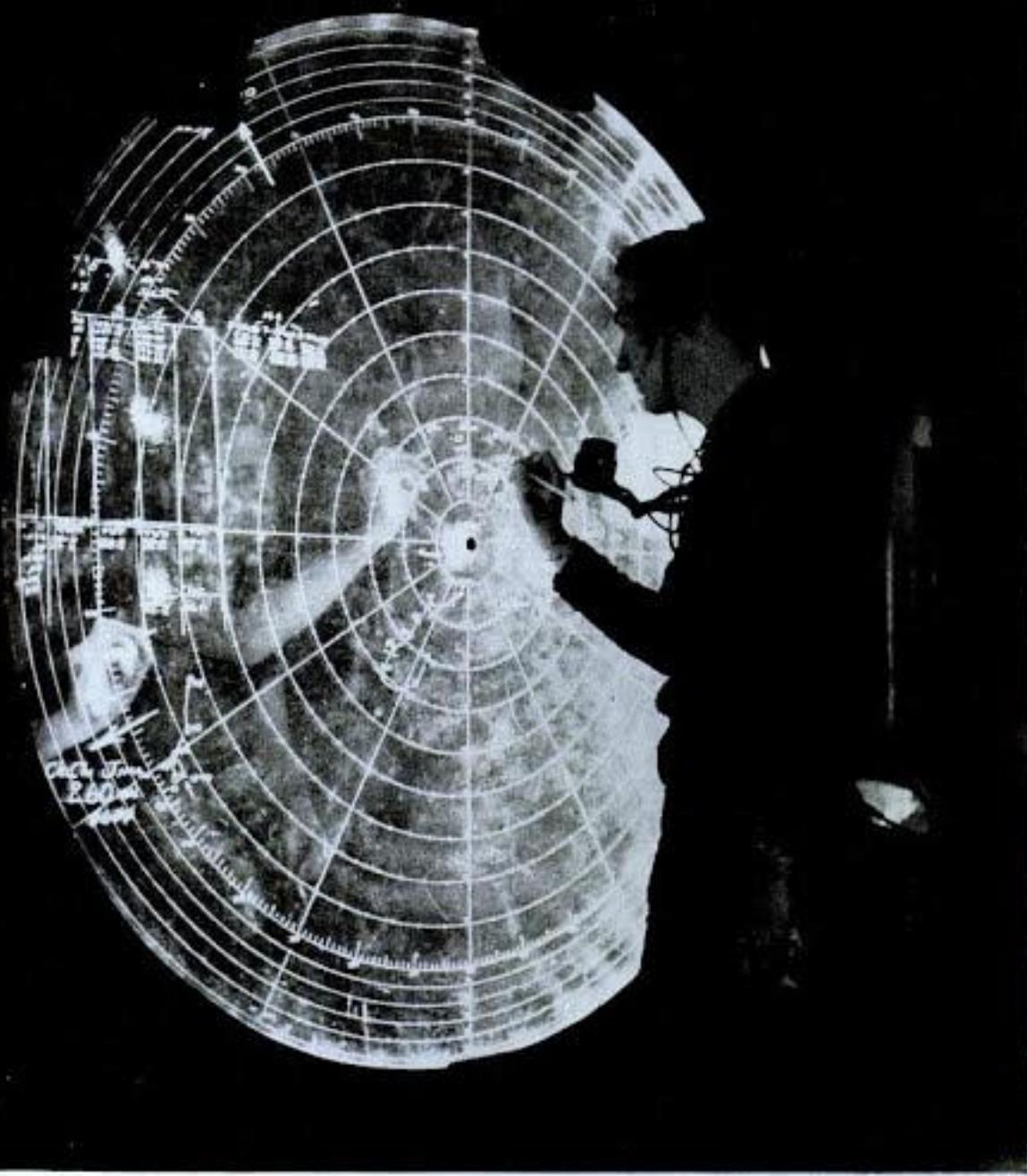
RETURNING FROM RAID 'scope identifies familiar Japanese lakes for navigator, showing them as dark areas. Small circle in center indicates plane's altitude, which is 10,000 feet.



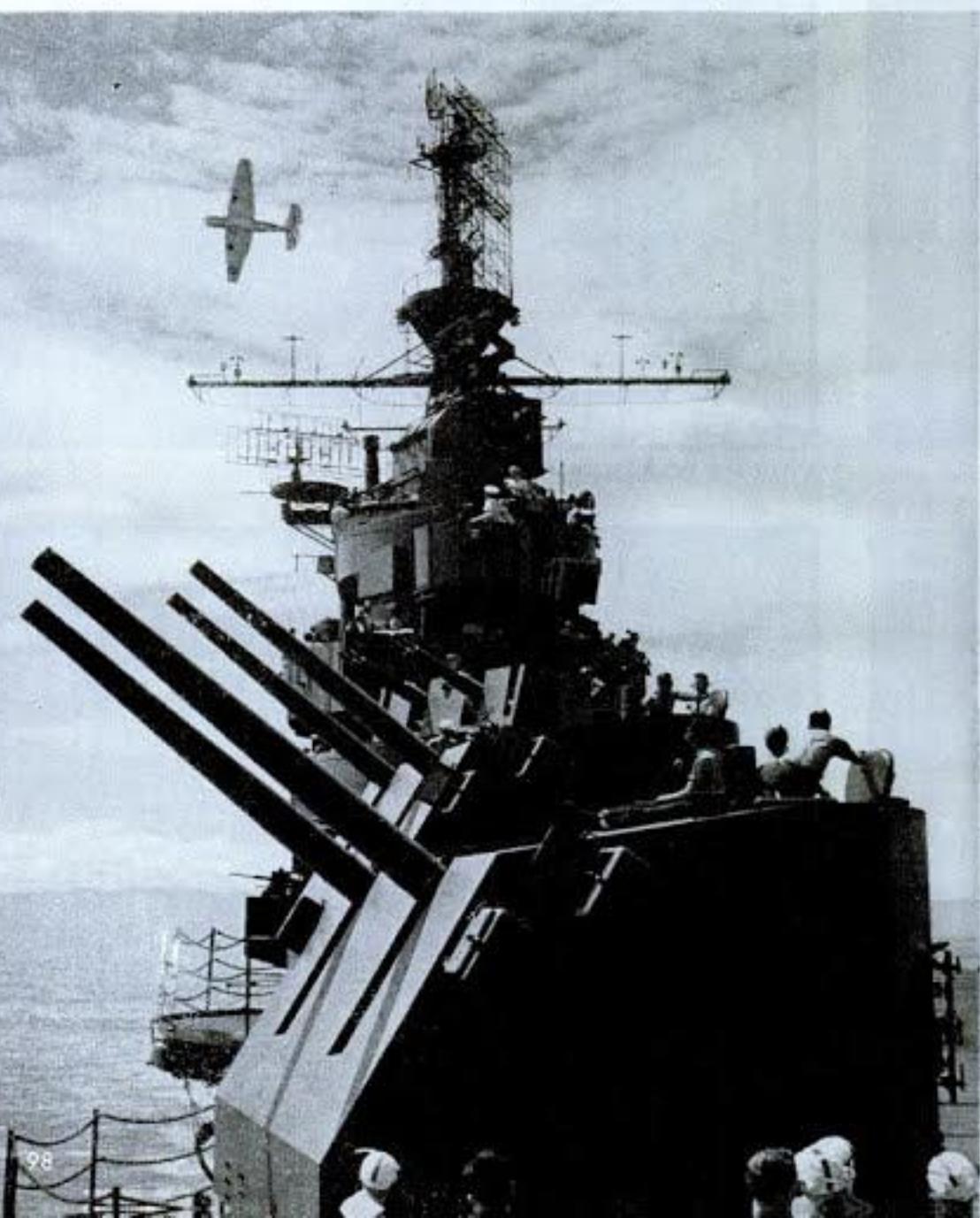
HEADING OUT OVER OCEAN, the 'scope picks up a convoy of Japanese ships off coast. The ships, which are too small to appear on relief map, appear clearly on face of the 'scope.

viewing screen, or 'scope, as those seen by radar operators on actual flights. In this sample mission, a B-29 has used radar to navigate to and from its target and to drop its bombs.

Not all radar 'scope images are the same as those which appear in these pictures. This particular type is called Plan and Position Indicator, or PPI, a comparatively advanced application of radar which, used from airplanes, "paints" a fluorescent screen with a dim picture of the ground below. There are numerous other types of pictures which appear in radar 'scopes. Some show a luminous horizontal line with peaks to indicate the presence of various objects. Others show luminous blobs on a square grid screen. All of these types, in addition to PPI, are used separately or in combination to make radar a remarkably precise instrument for "seeing".



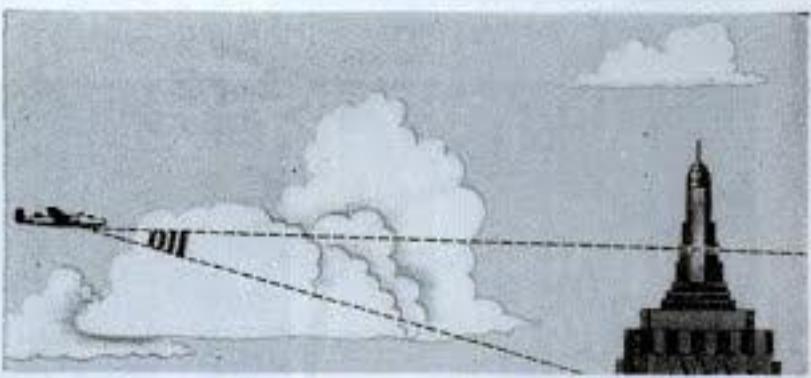
NAVAL RADAR searches are often coordinated by plotting movement of ships and planes on a big luminescent screen. Below: a carrier, showing a few of its many radar antennae. The big structures like naked bedsprings are for scanning the sea and sky around ship. Warships also carry other radar for fire control.



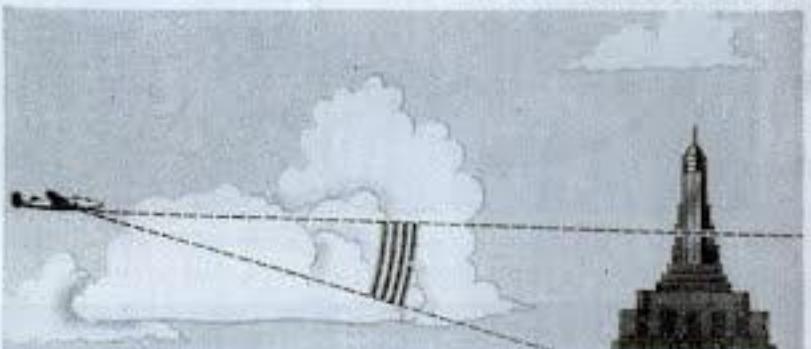
RADAR CONTINUED

IT WORKS BY RADIO ECHO

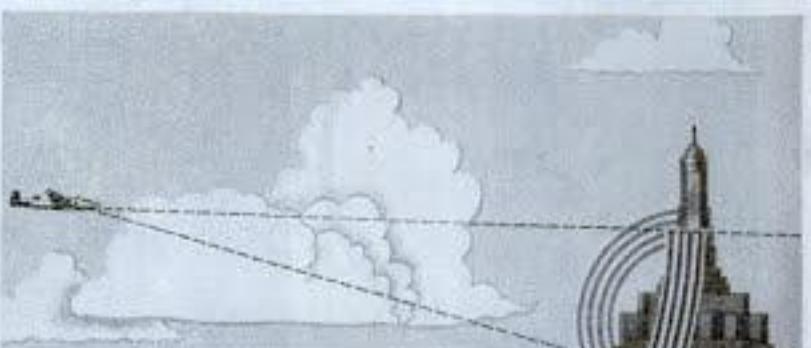
Radar operates on two basic principles. The first is that radio waves bounce from solid objects much like echoing sound waves. The second is that very short radio waves can be focused in a beam much like a searchlight. A simple radar set sends out a short, powerful pulse of high-frequency (*i. e.*, short) waves, receives and times the echo from any object in their path. This information is translated into an image on the face of a cathode-ray tube by the same method used in television. Various types of images indicate direction, distance and height of the object which sent back the echo. If the B-25 which crashed into the Empire State Building July 28 had used radar, these principles might have worked in the way they are illustrated below. One of radar's peacetime applications will be to prevent the recurrence of such accidents.



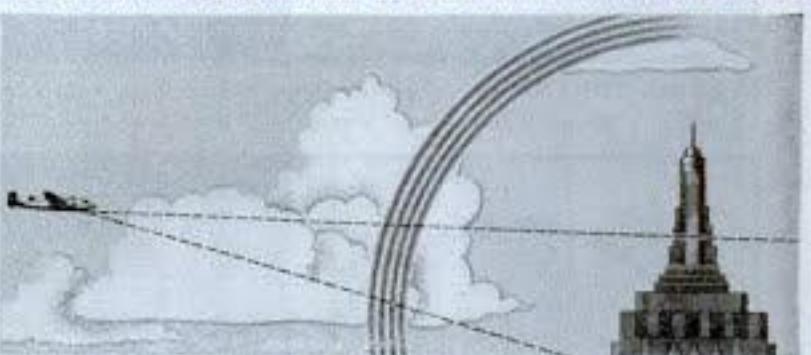
PLANE NEARS EMPIRE STATE BUILDING IN CLOUDS, SENDS OUT PULSE



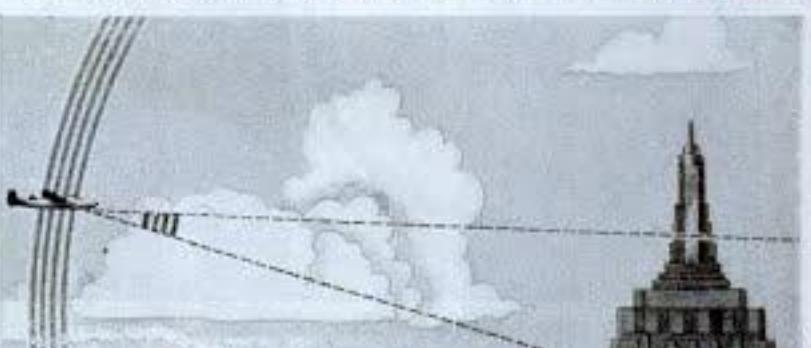
THE PULSE TRAVELS AHEAD OF PLANE WITH THE SPEED OF LIGHT



PULSE STRIKES BUILDING AND ECHO STARTS BACK TOWARD PLANE



THE ECHO SPREADS OUT IN ALL DIRECTIONS FROM POINT OF ORIGIN



WARNED OF BUILDING BY ECHO, PLANE SENDS OUT SECOND PULSE

AN ANTI AIRCRAFT RADAR SET
SCANS NIGHT SKY FOR PLANES





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MANHATTAN PROJECT

CONTINUED FROM PAGE 91

others present, with special double-thick dark glasses. Near Albuquerque the light flashed across the sky seconds ahead of the sound and a blind girl asked, "What was that?" An El Paso woman driving across the Arizona-New Mexico line 150 miles from San Marcial, the village near Alamogordo, saw the mountains illuminated for about three seconds "exactly like the sun had come up and then suddenly gone down again."

The blast which followed this artificial sunburst knocked down two men standing behind the control hut more than five miles from the tower. The tower itself simply disappeared—probably vaporized by the heat. In its place was a vast crater half a mile wide and a quarter of a mile long. The desert sand in the crater was turned into fused quartz by the heat.

Not until Hiroshima was practically obliterated by a cousin of the New Mexico bomb did the world learn what had been accomplished. Atomic energy, harnessed and unstable, was a fact. The cyclotrons and gamma rays suddenly moved out of the basements of physics laboratories. The "absent-minded" professors with their theories of relativity and interminable formulae shed their black alpaca coats and overnight donned the tunic of Superman. The weirdly illustrated yarns about rockets to the moon seemed slightly less fantastic now as scientists and philosophers predicted a universal revolution of economics, politics and human customs in the wake of automobile engines the size of a man's fist; power, light and heat so abundant that almost limitless energy would be available; universal private air travel; liners sailing across the Atlantic and back on the atomic energy of a glassful of water; and every conceivable amenity of life distributed cheaply to all the children of the earth. Scientists cautioned that these were no more than possibilities in the elastic future, but nevertheless they were taken seriously. Thoughtful newspaper writers speculated on the coming size and shape of generating plants and took the doleful view that the saving to U.S. railroads by supplanting coal with atomic energy could not possibly equal the revenue derived from hauling coal, the premise being that coal mining would join the hand loom and the Salem clipper.

The force of 2,000 Superfortresses

But in the days after Hiroshima the only immediate and positive knowledge was that the world had become as unsafe as it might someday become delightful. The Japs themselves acknowledged that they could not even count their dead, much less identify them or tell men from women. Tens of thousands were "seared" beyond recognition by a blast comparable to the one in New Mexico which "vaporized" steel. That was the result of one bomb. It had, according to President Truman and the War Department, more power than 20,000 tons (40,000,000 pounds) of TNT, the equivalent of 2,000 block-busters or a raiding force of 2,000 Superfortresses. The bomb itself has been estimated to weigh up to 400 pounds. And when it exploded, the released energy was said to be only

CONTINUED ON PAGE 102

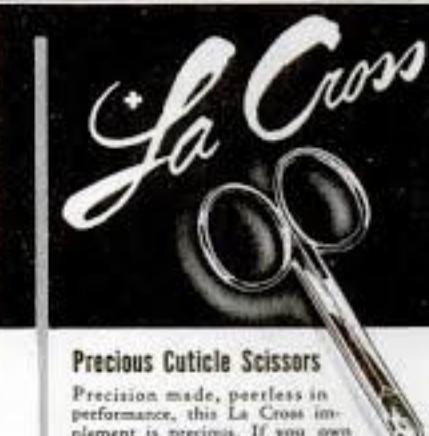


FORCE OF EXPLOSION'S AFTERMATH knocks over observers who rose minutes later to see its effects. One person who saw the blast from close up was blinded by light.

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MAJOR GENERAL LESLIE R. GROVES headed Manhattan Project for three years. He remained unknown, made oral reports to Secretary Stimson and General Marshall.

MANHATTAN PROJECT

CONTINUED

one-tenth of 1% of the total potential energy contained in the explosive. Terrible and destructive as it was, the atomic bomb of 1945 was the mere fetus of atomic bombs of the future. That everyone took for granted—and then took a look into a future where superefficient atomic bombs carried to the ends of the earth by radio-controlled stratosphere rockets might wipe out nations and whole races in a matter of hours. The Japs—whose own sun goddess was paying them a visit in the split atoms of uranium—complained that the U.S. violated international law, which they so punefully observe. The Vatican press disapproved and harked back to Leonardo da Vinci, who suppressed his invention of the original submarine because of the damage it might cause. In England, newspaper letter columns registered strong protest—"My God! Has the world gone crazy?" "Is there to be no protest against the crime of Hiroshima?" "Japan has never aroused my sympathy until today, and now my heart goes out to her." In Luxemburg high Nazi chieftains now held as war criminals denied that they had made any real progress in the development of atomic bombs and professed to be shocked. "No one would be so stupid as to start a war now," von Ribbentrop commented. "A mighty accomplishment. I don't want anything to do with it," said Hermann Göring. "I am leaving this world."

Until quite recently, of course, Göring would have been delighted to have everything to do with the atomic bomb and, in possession of it, von Ribbentrop would have considered war anything but stupid. It is well known to the Allies that the Germans made atomic research the highest priority item in their war program, and it is even alleged that Hitler kept the Wehrmacht in the field months after the General Staff decided the war was lost by promising an atomic bomb which might destroy England in a matter of days. Conversely, the atomic bomb in Allied hands might have made the invasion almost unnecessary. In short, the winner of the atomic bomb race automatically would have won the European war.

It is not known just how far the Germans advanced toward perfecting atomic weapons, but their efforts were frantic and the British had good cause to dread the outcome. It was thought that a center of German activity existed at Peenemunde, site of the V-bomb development factories, and during 1943 and 1944 Allied bombers destroyed the installations—also killing, it is believed, several of the leading German atom experts. From the Norwegian underground came word of a mysterious German plant at Rhukan,

CONTINUED ON PAGE 105

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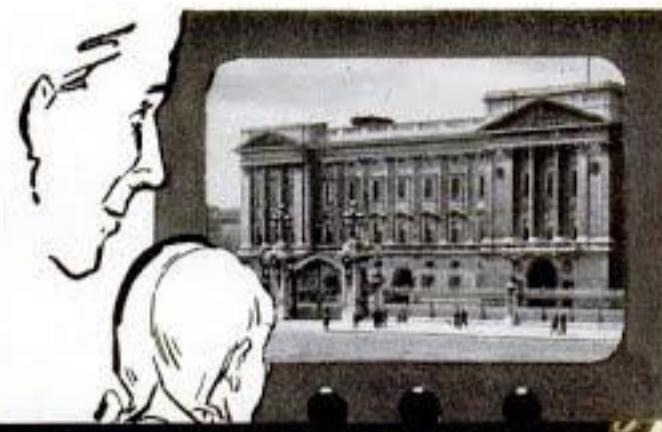


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And wherever you plan to fly—London, Paris, Rio de Janeiro, Alaska, Hawaii, or China—remember that in the last 17 years Pan American World Airways has carried over 3,250,000 passengers—men, women and children... A record unequalled by any other international airline.



You will step into a different world when you step aboard a giant postwar Clipper... Ample space to move around in!

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MANHATTAN PROJECT CONTINUED

Norway, which was producing large quantities of "heavy water" which might be used in certain atomic experiments, and with British support Norwegian saboteurs exploded this plant in 1942 after four months of planning. Oddly enough, the questions asked by German agents in the U.S. enabled our intelligence to keep pretty well abreast of developments in the Reich. For example, the great interest shown by spies in the safety devices of U.S. atom bomb plants indicated that the Germans were having trouble controlling their processes. Perhaps hopeful of getting a ready-made solution of the whole problem, Adolf Hitler in 1943 issued a special order for the capture of the Danish expert, Dr. Niels Bohr. The Danish underground thwarted this, however, and Bohr and his family were smuggled out of Denmark ahead of the Gestapo. He went first to Sweden, taking with him invaluable data on his researches prior to 1940 when he stopped work in protest against the Nazi occupation. Later on a British Mosquito bomber picked up Bohr and brought him to England, where he arrived more dead than alive. The pilot had been instructed to drop Bohr out with a parachute through the bomb-bay door in case of interception, and the scientist thus lay on the bomb doors through the trip. Possessing an unusually large head, he was unable to wear the earphones connecting with the cockpit and consequently did not hear the pilot's instructions to put on an oxygen mask when the plane went into high altitudes. Bohr was unconscious for hours and did not recover from the experience for days. Eventually he left England and came to the U.S., where he joined the army of experts working on the "Manhattan Project."

It is the work of many minds

As shown by the gallery of scientists on pages 92 and 93, the atomic bomb is anything but an individual invention. To find the "inventor" of atomic energy would be like finding the original "inventor" of the wheel, or steam, or electricity. The practical application of basic forces in nature occurs when a series of observations are placed in correct order; when the theories of many reach the point of synthesis and reconciliation; when the missing keystone is cemented into the arch. In this case, the basic natural force is that which the sun utilizes to provide heat. President Truman made note of this in his original statement when he spoke of "harnessing" the forces of solar energy. For the sun does not burn with an ordinary fire. Its virtually ageless existence, physicists contend, is due to atomic disintegration on a mighty scale. The surface of the sun probably is in a state of constant atomic explosion millions of times more intense than that of any bomb.

The structure of the atom and the manner in which it releases energy are shown on pages 87C and 87D. These basic facts and concepts were accumulated over decades, with great acceleration of discovery in recent years. Among contemporary physicists who made important contributions to the whole are Dr. Bohr, who explained the internal structure of the atom; Dr. Enrico Fermi, Italian scientist whose experiments with uranium in the early '30s created new and unknown elements after neutron bombardment and opened a great field of investigation; Dr. Lise Meitner, Austrian woman scientist who proved that atomic fission (splitting) accounted for the mystery of Fermi's experiments; Dr. E. O. Lawrence, inventor of the cyclotron for neutron bombardment; Dr. Albert Einstein, who stated the proposition that all matter is in effect congealed energy; and many others.

Prescription for an atomic bomb

By 1939 knowledge and techniques had reached a point where the atomic bomb was a theoretical possibility. The physicists' prescription called for 1) a substance of such a nature that when its atoms were hit by neutrons, the resulting fission would give off several more neutrons, which would hit and split adjoining atoms, and so on in a chain reaction; and 2) a feasible method of containing and controlling this explosive chain until the moment when its destructive powers were wanted. The second part of the prescription is, and for years probably will continue to be, hidden under clouds of censorship, for it is the *modus operandi* rather than the theoretical foundations of the atomic bomb that belong exclusively to the U.S., Canada, and Britain. The first requirement, however, was filled in a series of dramatic experiments which eventually produced not one but two atomic substances which exploded in chain reaction. The earlier of them in point of discovery is the uranium isotope 235, which was separated from natural uranium in a quantity barely large enough for experimental purposes in 1941, by Dr. Alfred O. Nier of the University of Minnesota. The second is Plu-

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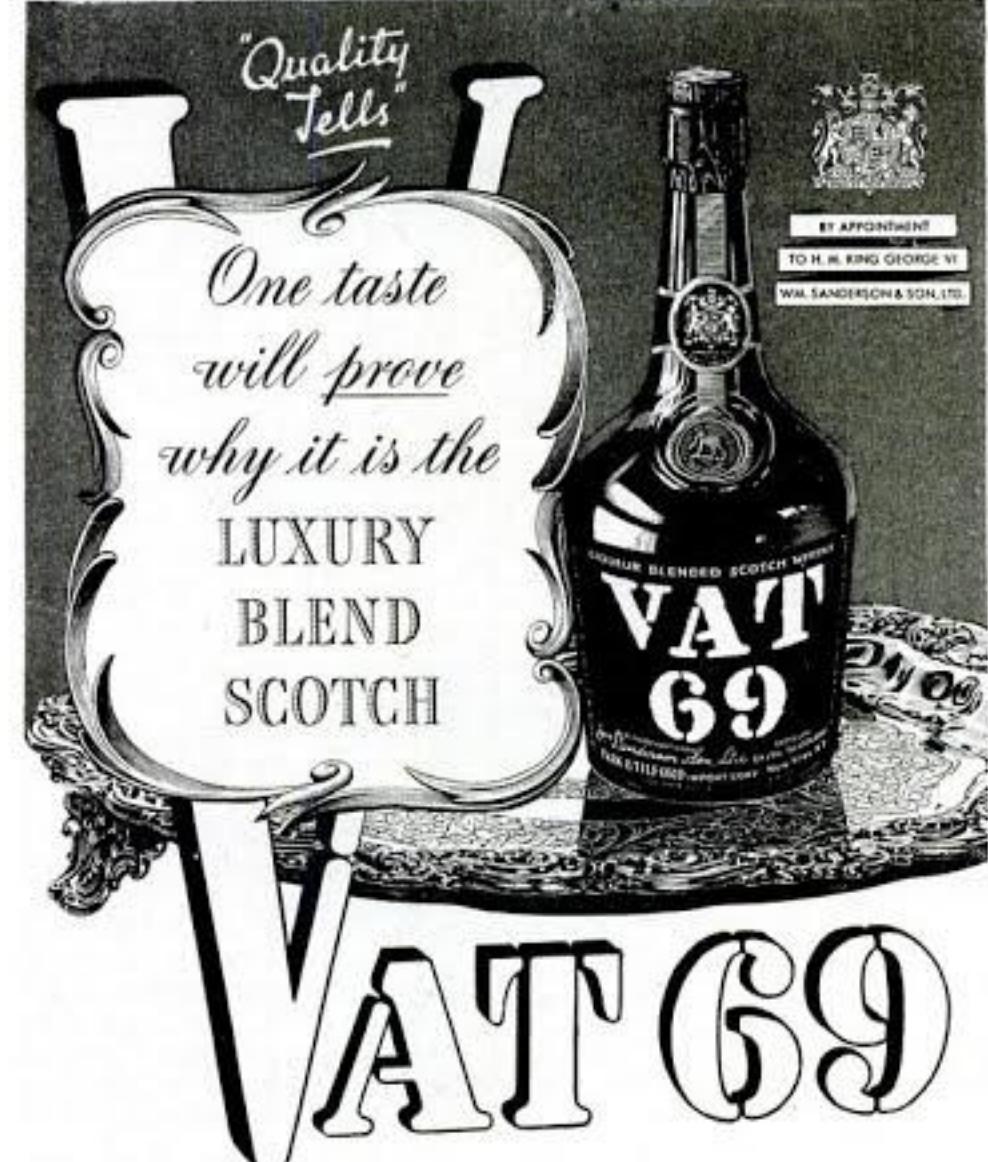
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Danger lurks on every surface not hygienically clean. Don't let your and your family's feet be infected by the spores of this invisible enemy! Use Dr. Scholl's Sulfa Solvex to help prevent Athlete's Foot and fight it if you have it. This remarkable new powder preparation of America's noted authority on diseases and deformities of the feet, contains the miracle drug, Sulfathiazole—so helpful in preventing as well as fighting secondary infections, frequently occurring in Athlete's Foot.

Dr. Scholl's Sulfa Solvex quickly relieves intense itching; kills the fungi it contacts. Helps heal red, raw, cracked or peeling skin between toes and on feet. 50¢ at Drug, Shoe, Dept. Stores and by prescription in states requiring it. Use exactly as directed.

**Dr. Scholl's
SULFA SOLVEX**



DR. JAMES BRYANT CONANT, Harvard's president and noted chemist, was overseer of atomic experiments, will help supervise postwar development of atomic energy.

MANHATTAN PROJECT CONTINUED

tonium, an altogether new chemical element whose creation by man gave an authentic air of the supernatural to the bomb's development.

One of the first experiments with uranium 235 took place in the physics laboratory of Columbia University, New York City, in 1939. There Dr. Fermi, who recently had come from Italy to join the staff, Dr. John R. Dunning and others tested U-235 in the cyclotron. First they bombarded U-238 with a stream of neutrons. Outside the water tanks which surrounded the machine on all sides to absorb dangerous emanations, the recording instruments indicated tremendous bursts of energy being released spasmodically. Dunning and Fermi then removed the U-238 and substituted an almost infinitesimal sample of U-235. Again the cyclotron shot its low-velocity neutron bullets at the targets. This time there were violent and spectacular effects. The instruments chattered and the wavy line on the oscilloscope registering energy given off by the atomic explosions stayed almost constantly at 200,000,000 electron volts. This voltage was produced each time an atom of U-235 was split—and the splitting took place about 10,000 times and more, faster than in the case of U-238. There is almost no way to express this force in comparative terms, but when a pound of TNT explodes it releases only five electron volts per molecule of the mass. Thus the energy output of TNT beside that of U-235 would be like an ant beside an elephant. Watching the oscilloscope, Fermi and Dunning knew that the world's destiny was being changed.

Enter Plutonium

After the chain reaction of U-235 had been demonstrated, a group at the University of Chicago, under the direction of Dr. Arthur H. Compton, began to investigate the effects of neutron bombardment on U-238, the isotope whose reaction had produced such a fitful pattern on the oscilloscope at Columbia. They confirmed that under certain conditions the nucleus of this atom can absorb a neutron from without and when this occurs, a new and heavier isotope is created. This is radioactive and changes into another substance. The investigators called it "neptunium," from the fact that it is beyond uranium—the heaviest natural element—in the table of elements just as Neptune lies beyond Uranus in the solar system. But neptunium also is radioactive and in turn changes to "plutonium"—Pluto being beyond Neptune. This new element is highly unstable and when touched off by a neutron "bullet" has a similar chain reaction to U-235. It may have been the essential explosive element in the New Mexico and Japanese bombs, perhaps in conjunction with U-235, perhaps alone.

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- ... To produce all the cigarettes possible without sacrificing quality.
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Listen To: DETECT AND COLLECT Wednesday Evenings CBS—and MEET ME AT PARKY'S Sunday Evenings NBC

THERE you see it!

GLARE you don't!

AO POLAROID* Day Glasses
The Only Sun Glasses
THAT FILTER REFLECTED GLARE

POLAROID
DAY GLASSES

American Optical COMPANY
 World's largest makers of ophthalmic materials
 BUY WAR BONDS AND STAMPS

Armed Forces demands limit civilian supplies. \$1.95 up.
 *T.M. Reg. U.S. Pat. Off. by Polaroid Corp.

IT'S GOT THAT "ZING"

THAT CERTAIN "THING"

THAT THRILLING THING CALLED FLAVOR!

• Hot Dan's sandwich is quick, different, delicious: Spread one slice of bread with French's Mustard; the other with peanut butter, and put the 2 slices together. Fine for hearty appetites!

A blend of the finest spices and mustard seed money can buy!

French's
 MUSTARD
 THE OLD GOLD

Precious Gems... worth their weight in figure flattery. GEMS by Regina—beautifully knit of quality yarn—ever new in style. Sorry, not enough to go around today.

REGINA KNIT SPORTSWEAR CO. Chicago

MANHATTAN PROJECT CONTINUED

Since it does not occur in nature, plutonium cannot be extracted from ores or other natural sources but results only from the neutron bombardment of U-238. Neutrons are produced in greatest quantity by the U-235 chain reaction and this, rather than cyclotron bombardment, is the novel method used to produce plutonium.

Production of the new element began in 1942 in an ingenious and odd-looking structure called a "pile," shaped like a bathysphere and located on a squash court under the University of Chicago stadium. Here slugs of purified uranium were piled with blocks of graphite and bombarded with neutrons from fission of the U-235 contained in the uranium. The neutrons from this reaction bombard the U-238 in the uranium, changing it to the radioactive substance which becomes plutonium. The purpose of the graphite was to slow down the velocity of the neutrons, for if they move too fast they bypass the atoms under bombardment. Of course, a solid block of uranium treated this way does not immediately become a solid block of plutonium. Not all of its atoms absorb the neutrons, and for that reason plutonium is produced in small quantity and must be extracted from the uranium by difficult chemical processes. Activated slugs from the pile are moved under water to the first of a long series of heavy concrete cells, where they first are dissolved and the plutonium separated through successive operations, with the solution pumped from one cell to the next. The process is governed by remote control and from behind heavy protective shields, since the radioactive by-products are exceedingly dangerous to the human body.

In the ordinary course of events all this would have been the work of decades, but war left no time for leisurely progress. In England and Germany atomic research was mobilized on the most urgent footing. Here, late in 1939, President Roosevelt was advised of the war potentialities of U-235 and appointed a commission to study the problems involved. Its findings led to the organization of the Army's Manhattan Project (so named because of the original Columbia experiment) and to a total news blackout of the entire subject of atomic investigations in general and uranium in particular.

The best-kept secret

Some details of the organization of science, industry, labor and the Army and Navy for that project have been revealed, but it will be a long time before there is much specific information about actual production. Research was started under government auspices following the report of President Roosevelt's commission, which came within a year after the demonstration of the power of U-235. In 1941 the project had become a major undertaking, and by 1942 it was functioning on a scale nearly unprecedented. In point of speed, numbers of people involved, technological problems surmounted in a wholly new area and dramatic secrecy preserved from beginning to end, the whole project probably is the most impressive industrial accomplishment in the world's history. To establish production, three vast plants with whole cities for workers were created in a matter of months. Two plants were built on a 59,000-acre government reservation near Knoxville, Tenn. Known as Oak Ridge, this installation had a peak population of approximately 75,000 and was the fifth largest city in the state. The third plant went up on a 430,000-acre reservation in a remote section of Washington State and had a population of 17,000 known as Hanford. This was the center of large-scale plutonium production in piles similar to the one constructed at Chicago but very much larger. Great heat is generated in these piles, and one reason for the choice of the Washington site (apart from its isolation and abundant power supply) was its proximity to the Columbia River, best source of pure cold river water in the U.S. The water is used for cooling the piles, and it is said that below the Hanford plants the Columbia is warmer than above as a result of the enormous discharge of heat.

They worked like moles in the dark

In addition to the Tennessee and Washington plants, a colossal research center was built at Los Alamos, outside Santa Fe, N. Mex. Here some 7,000 workers and technicians were employed. In Washington during the construction stage of plants and laboratories the mere words "Manhattan Project" were magic for obtaining the most critical materials in any amount and skilled labor in any volume. But the words were spoken in whispers and never in casual company. You simply did not talk about Manhattan Project or speculate on its purpose. A civilian saying anything about it was likely to be visited at length by Army intelligence and the FBI. Officers who showed the slightest inclination toward garrulity suddenly found themselves transferred overseas.



Almost as if they were
MADE OVER "LIVING" LASTS!

...they're *FIT-TESTED*®



Only after weeks of fit-testing on active, human feet
do we introduce a new style in beautiful Gold Cross Shoes

Fit-Tested? Yes, just as if they were made over "living" lasts. Before any Gold Cross style is introduced, hand-made originals are worn...walked in... for weeks. Checked, daily, by our designers for gapping, wrinkling, binding. Changed. Checked again. Until the kind of fit is assured that millions of women tell you they find *only* in beautiful Gold Cross Shoes... America's famous Fit-Tested footwear. A. The *RITZ*, B. The *FROLIC*, C. The *STRATFORD*, D. The *BELMONT*, E. The *SEVENTEEN*.



RED CROSS SHOES

FAMOUS FOR OVER 50 YEARS AS RED CROSS SHOES

America's unchallenged shoe value at

\$6.95

Most styles, Denver West \$7.45

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Choice of a lifetime...



For a full measure of pleasure in a tall, cool drink, make it with the finest Golden Wedding in more than fifty years. One sip will make this choice whiskey your *choice of a lifetime*.

Golden Wedding

Has
had no
peers for
fifty
years

BLENDED WHISKEY • 86 PROOF • 70% GRAIN NEUTRAL SPIRITS • COPR. 1945 JOSEPH S. FINCH & COMPANY, SCHENLEY, PA.

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MANHATTAN PROJECT CONTINUED

Probably no more than a few dozen men in the entire country knew the full meaning of Manhattan Project, and perhaps only a thousand others even were aware that work on atoms was involved. The whole vast, intricate undertaking was so compartmented and channelized that below top directorial levels no one could see more than a tiny fraction of what was going on, and that fraction never seemed to join with any other. The thousands of men and women in the plants worked like moles in the dark. Their jobs were not explained. The factories were not explained. The purpose of what they were doing was not explained. The end product—if any—was never mentioned. Raw materials by the mountain poured into Oak Ridge and Richland Village, the Washington establishment, but nothing ever seemed to move out. The actual production processes were invisible. Workers stood at dials and switches while behind thick concrete walls mysterious reactions took place. When the news broke after Hiroshima the employes of Manhattan Project were as startled as the rest of the nation. At Oak Ridge, newspapers the day of the announcement sold for a dollar a copy, no change requested or given.

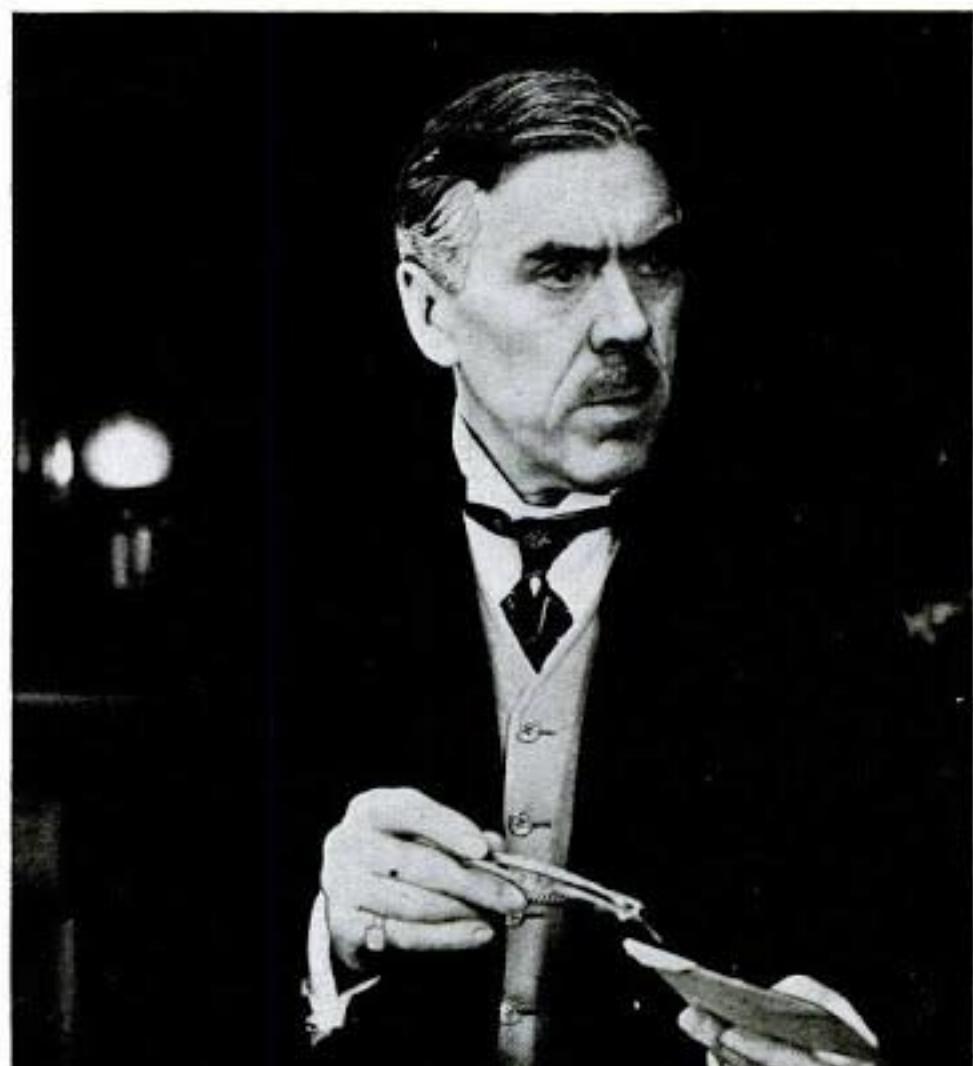
Of course, there were rumors. But workers talked little among themselves and less to strangers. "We make bubble gum," they sometimes told inquisitive folk, as one worker told President (then senator) Harry Truman at a congressional probe of alleged waste of manpower on the Richland project. The probe was abandoned almost immediately on General Marshall's urgent request.

Flight to the new world

The same secrecy extended even to the distant Marianas, where fliers regularly bombing Japan under command of Generals Spaatz and LeMay had no idea that an atomic bomb existed anywhere, let alone that it had arrived in the islands along with a sizable contingent of technicians. Even on the historic flight of the B-29 *Enola Gay* to Hiroshima crew members were ignorant of the nature of the mission. Only three men aboard knew what it was: a naval ordnance expert, Captain William S. Parsons; Major Thomas W. Ferebee, bombardier; and the pilot, Colonel Paul W. Tibbets Jr., who flew over the city at great altitude and turned his ship homeward as fast as he could while a "monstrous" column of smoke erupted from the ground; aerial shocks like flak bursts rocked the plane; and a blanket of boiling brown dust quickly obliterated Hiroshima. Beneath this dust, and in it, lay the complete wreckage of four square miles and the blistered, unidentifiable bodies of countless thousands—an estimated 100,000 instantly killed. All this they would not know until later, but at the moment of the explosion several crew members, long hardened to bombing, exclaimed in horror and wonder, "My God!" The atomic age was born.



DR. VANNEVAR BUSH, an overseer of bomb project, runs the Office of Scientific Research and Development which U.S. set up to direct war science research projects.



ACTORS' FACES are extra sensitive

*—that's why Leo G. Carroll shaves
with soothing WILLIAMS*

IT'S NO FUN wearing heavy stage make-up every day—removing it with rough towels, sometimes even strong chemicals. This constant putting-on and taking-off of make-up are what make an actor's face so sensitive to irritants in shaving cream.

A shaving cream can be truly mild only when it's made of finest quality, pure ingredients—blended together in exact proportions. Williams is a cream like this—made with a skill that comes from

over 100 years' experience in the manufacture of fine shaving preparations. It's naturally easy on your face.

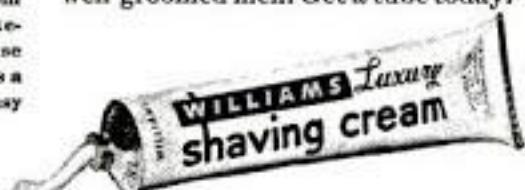
Soaks whiskers soft

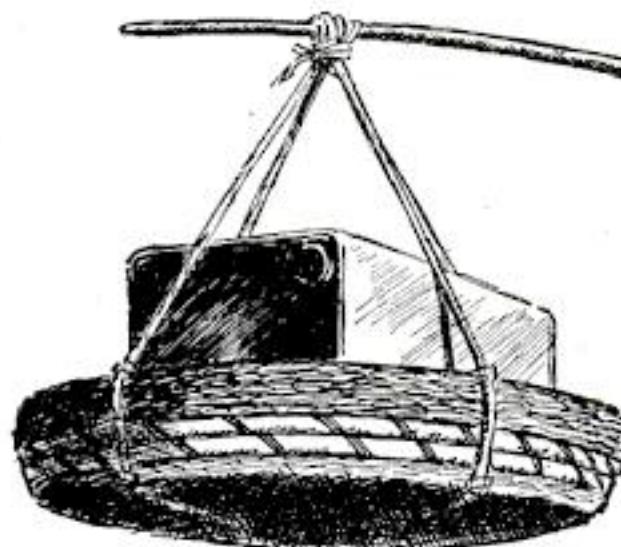
Rich, easy-lathering Williams Shaving Cream soaks through the oily film that surrounds each whisker... softens toughest beards completely. It lets your razor do its work easily, helps you get smooth, clean shaves without scraping or irritation.

Your first shave with Williams will tell you why it's such a favorite with distinguished actors and other well-groomed men. Get a tube today.



LEO G. CARROLL, now starring in the Broadway hit, "The Late George Apley," says: "Of course my face is tender and sensitive from years of wearing and removing stage make-up. But shaving doesn't bother me when I use Williams Shaving Cream. Williams lather is a great beard softener—and it's mild and easy on my face."





Don Eston

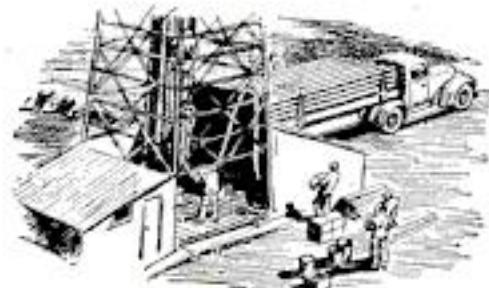
Why does he make only 5¢ a day?



1. Transportation can create wealth just as surely as farming or manufacturing. For it increases the value of a product by taking it from where it exists in abundance to where it is scarce and needed. Therefore, the *more* product you can move, the more wealth you can create—and the more you can earn.



2. Both the Chinese coolie and our Union Oil truck drivers are transportation workers. Yet the coolie makes only 5¢ a day and our truck drivers average \$9.90. Why? Well, the coolie, with his equipment, can only transport 10 gallons of kerosene about 20 miles in a day.



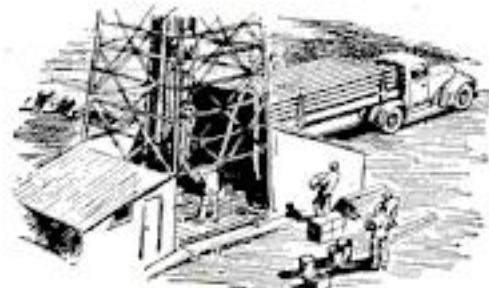
3. But our trucker, with the machinery at his disposal, can transport 5,000 gallons 300 or 400 miles in a day. Consequently *he can create many times as much wealth with his day's work*. In other words, *mechanization—not the popular fallacy that China is "overpopulated"—accounts for the difference*.



4. The average American can't produce much more with his bare hands than the average Chinese—or European. But he has *far more machinery* at his disposal *with which to multiply the labor of his hands*. At Union, for example, there is \$43,525 in equipment—oil wells, trucks, etc.—*for each employee*.



5. This equipment is owned by 32,227 Union Oil stockholders. But *who owns it isn't so important as the fact that it is available for use*. For while the stockholders' dividends last year amounted to 3% on net capital invested in equipment, the employees were able to earn far more than that *from the use of the equipment*.



6. So the important point is not *who owns the machines of production but under what system will those machines be best and most plentiful*. Our free, competitive American system isn't perfect yet, but it has put more and better machines at our disposal than any other system known to man.

**UNION OIL COMPANY
OF CALIFORNIA**

This series, sponsored by the people of Union Oil Company, is dedicated to a discussion of how and why American business functions. We hope you'll feel free to send in any suggestions or criticisms you have to offer. Write: The President, Union Oil Company, Union Oil Bldg., Los Angeles 14, Calif.
AMERICA'S FIFTH FREEDOM IS FREE ENTERPRISE



DURING "WHITE CLIFFS OF DOVER" LOUIS PRIMA (IN FOREGROUND) AND HIS BAND LEAVE THE STAGE AND PARADE THE AISLES OF NEW YORK'S STRAND THEATER

NEW BAND HIT

Clowning and dialect songs make Louis Prima a teen-age favorite

Autograph fans gang up on Louis Prima in the alleyway outside the Strand Theater. During his rendition of *Please No Squeeze Da Banana* (see next page) kids present him with every variety of fruit.



The talk of the music business last week was a swarthy, gravel-throated New Orleans trumpet player named Louis Prima. He and his band had just scored a sensational hit at New York's Strand Theater. The demand for their Majestic records far exceeded the supply. Prima's antics and dialect songs had endeared him to teen-agers who were taking his "Play pretty for the people" as their new slogan. After years of scuffling Louis Prima had hit the jack pot.

Back in 1934 Louis Prima's punchy trumpet was

one of the brashest glories on Manhattan's jazzy West 52nd Street. But his music was more successful artistically than financially and he decided to form a big, corny band. It was such a flop that on occasions he and his men had to siphon gas from parked cars in order to get from one engagement to another. Then, in 1944, they recorded a song called *Robin Hood*. It and Prima's band became overnight hits. But to hot-music purists, Prima's present clowning is a sad comedown from his admirable playing of 11 years ago.

As the stage descends at end of Prima's performance at Strand, kids rush forward to show their affection. Fans gave him presents of gold jewelry, flowers and neckties.





Where is the line between the generations?

EVERY girl belongs to the younger generation until she feels another "younger" generation stealing up behind her. When she begins to object to their newer ways it's time to look out! . . . Take the case of Tampax—for monthly sanitary protection. This method has become very popular in the prominent girls' colleges and in offices and war plants. Some older women may think it's too "different" but Tampax really does follow a sound, scientific principle.

Tampax was invented by a doctor to be worn internally. Made of pure surgical cotton, it is ingeniously enclosed in individual applicators for quick and dainty insertion. (Your hands need not even touch the Tampax.) No belts or pins are required and no odor can form. Tampax causes no chafing and no bulging or wrinkling of clothing. Quick changing. Easy disposal. No embarrassment.

Sold in 3 absorbencies (Regular, Super, Junior) for varying individual needs. At drug stores, notion counters. Month's average supply will go into purse; for 4 months' supply get Economy Box.

3 absorbencies { REGULAR
SUPER
JUNIOR



Accepted for Advertising
by the Journal of the American Medical Association

TAMPAX INCORPORATED LF-29-BS-L
Palmer, Mass.

Please send me in plain wrapper a trial package of Tampax. I enclose 10¢ (stamps or silver) to cover cost of mailing. Size is checked below.

() REGULAR () SUPER () JUNIOR

Name _____

Address _____

City _____ State _____



Prima jitterbugs with girl during the playing of *Please No Squeeze Da Banana*. Italian dialect numbers like this did not become popular until after Italy joined Allies:

"Please no squeeze da banana, 'cause!
When you squeeze da plum,
You puts him on da bum . . .
If you squeeze, Officer, please squeeze da coconuts!"

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Fans dance on stage during *Felicia*, Prima's newest dialect bit. Mayor LaGuardia assured New York's wary license commissioner that "capicia" means "understand."

"I took Felicia out to Coney
She ate a fortune in sauerkraut and macaroni
But when I said 'I'd love to kiss ya'
Felicia no capicia."

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Don't punish your upset stomach by taking overdoses of antacids or harsh laxatives! Be kind to your stomach . . . take soothing PEPTO-BISMOL!

This pleasant-tasting preparation is neither antacid nor laxative. It spreads a soothing, protective coating on irritated stomach and intestinal walls, thus helping to calm and quiet common digestive upsets. Get a bottle from your druggist today. If you do not get prompt relief, consult your physician.

Pepto-Bismol

A NORWICH PRODUCT Norwich

KEEP
ON
BUYING
WAR
BONDS

MADE ESPECIALLY
TO RELIEVE TORTURE AND
KILL GERMS* THAT CAUSE
ATHLETE'S FOOT

'Extra Strength'
Liquid Also
KILLS GERMS*
That Cause It!



First applications of wonderful soothing, highly medicated liquid Zemo promptly relieve itchy soreness between cracked peeling toes. Then Zemo *on contact kills germs that cause and spread Athlete's Foot.

Zemo is a Doctor's antiseptic formula backed by an amazing record of success. The first trial convinces! At all drugstores, send a bottle of Zemo to boys in service.

ZEMO

Meet Mr. Q...

WHO USED TO BE THE WORLD'S WORST GROUCH

(Now he sleeps on an Englander Mattress!)



"Better Rest makes Better Husbands!"

Better husbands, better wives, better *people*! The simple but amazing truth—which doctors now emphasize more and more—is that the right kind of rest can make a world of difference in your health, your energy . . . yes, and your personality, too!

Look to your mattress

Sleep on a *faulty* mattress and you're likely to wake up listless, irritable, only half-rested. In order to wake in the morning at peak vitality, your mattress must give your body proper support!

ENGLANDER MATTRESSES are specially made to provide correct support...balanced support... for every part of your body. With ENGLANDER's brilliant new construction, muscle tensions

seem to melt away. You sleep blissfully relaxed, lulled into deep, rejuvenating sleep by ENGLANDER's magic buoyancy.

For the best in rest

Ask any good dealer to show you mattresses by ENGLANDER . . . makers of fine bedding for over 50 years. With proper sleep more vital than ever, you can't afford anything less.

THE ENGLANDER CO., INC., Main Office, Chicago, Ill.

England
AMERICA'S MOST LUXURIOUS
mattress

BELOW: The Englander Bodyguard, hand-tailored, magnificently constructed, only \$39.75. Exclusive features combat sagging and bulging, assure years of unequalled comfort. Other Englander Mattresses, from \$79.75 to \$24.75, at better furniture and department stores.



In each refreshing glassful . . . you get a
Helping Hand

AGAINST THAT WEARY, WILTED FEELING!



Active bodies quickly use up their protective vitamin C. Canned grapefruit juice restores it in a most refreshing way!



Handy, quick, and inexpensive, it's a Helping Hand in saving you time, in saving trouble . . . and cash!



A Glass a Day helps keep fatigue away. The juice is so rich in vitamin C.

No more economical, practical, and delicious source of protective vitamin C exists than grapefruit juice all squeezed and ready to pour!

• A thin, frosty glass of grapefruit juice trickling down that hot, dry throat—what a glorious job of refreshing it does. And that tart, fruity tang—how delicious. Yes, delicious . . . but so much more!

For in every can of grapefruit juice, there's a wealth of vitamin C—the vitamin needed daily to help keep you fit and vigorous—to help you fight fatigue.

So keep a goodly supply on ice. The squeezing and straining is done for you. All YOU have to do is refresh yourself—and enjoy yourself. And when you realize canned grapefruit juice is so very inexpensive, it will even add to your pleasure. Try it mixed with grape juice or mixed with ginger ale. Use it in fizzes and punches, but most of all—drink grapefruit juice straight. It's a mighty good habit to form!

And don't miss this

**CANNED FLORIDA
ORANGE JUICE
Now Available!**

NOW is your golden opportunity to make sure your family will have its daily glasses of orange juice, no matter how scarce the fruit supply may be these coming months. Buy your Canned Florida Orange Juice NOW!



IT'S THE
"COMMANDO FRUIT!"
FIGHT Infections!
FIGHT Colds!
FIGHT Fatigue!
FIGHT the Heat Waves!

• FLORIDA CITRUS COMMISSION
Lakeland, Florida

Canned  Florida

GRAPEFRUIT JUICE
A BIG HELPING EVERY DAY!



Benny Goodman and Vibrapharpist Red Norvo inspire each other during the Sextet's rendition of *It's Gotta Be This or That*. Goodman's recording of this is a best seller.

BENNY GOODMAN MAKES A COMEBACK

Last week jazz fans who deplored the success corniness had brought Louis Prima had one thing to feel good about. Benny Goodman, once "King of Swing," had regained his throne after a record-breaking theater tour. Only the Negroes Duke Ellington and Count Basie could boast of better bigtime swing bands than his.

Five years ago Benny Goodman broke up his long-famous band because of a kind of back trouble doctors sometimes call a "slipped disc," a term which Benny Goodman has recently honored by making a new record called "Slipped Disc." Now 36, Benny has made himself a considerable reputation as a classical clarinetist. His beautiful tone, lightning fingers and good musicianship enable him to take part in a Mozart quintet as skillfully as in hot music. But his success with the classics has not alienated him from his first love. Benny's most joyful moments still come when he and his Sextet weave delicate jazz patterns around an old tune like *After You've Gone*.



"Slim" Stewart, formerly of Art Tatum Trio and "Slim and Slim" duet, now with Goodman Sextet, bows as well as plucks double bass. He sometimes grunts a vocal.

For Enviable Dewy-Fresh

Lip-Allure



You need a Softer,
Smoother Lipstick
Like *Angelus*

For years now—

beauty-famous ANGELUS Lipstick has adorned
the lips of many of America's most gorgeous women.

The first lipstick ever made with a creamy base.

And it's this special creamy base which enables
ANGELUS to "stay-put," so tantalizingly lovely for
hours without drying on the lips. Let remarkably
beautifying ANGELUS caress your lips with
seductive, full rich beauty—with a fascinating
lovely appeal men can't resist. In
stunning fashion shades. Also harmo-
nizing cake and cream rouge.

49¢ and 79¢ sizes (plus Federal tax)

THE HOUSE OF

Louis Philippe

ANGELUS LIPSTICK — ROUGE — FACE POUDRE — CREAMS — MAKE-UP





Wheelbarrow with brush is carted off by Nancy and Beale. They refused to chop down the poplar trees sprouting on the

lawn. Nancy said she could not kill a tree. The "NO WORK NO EATS" sign kept them busy when they felt like quitting.



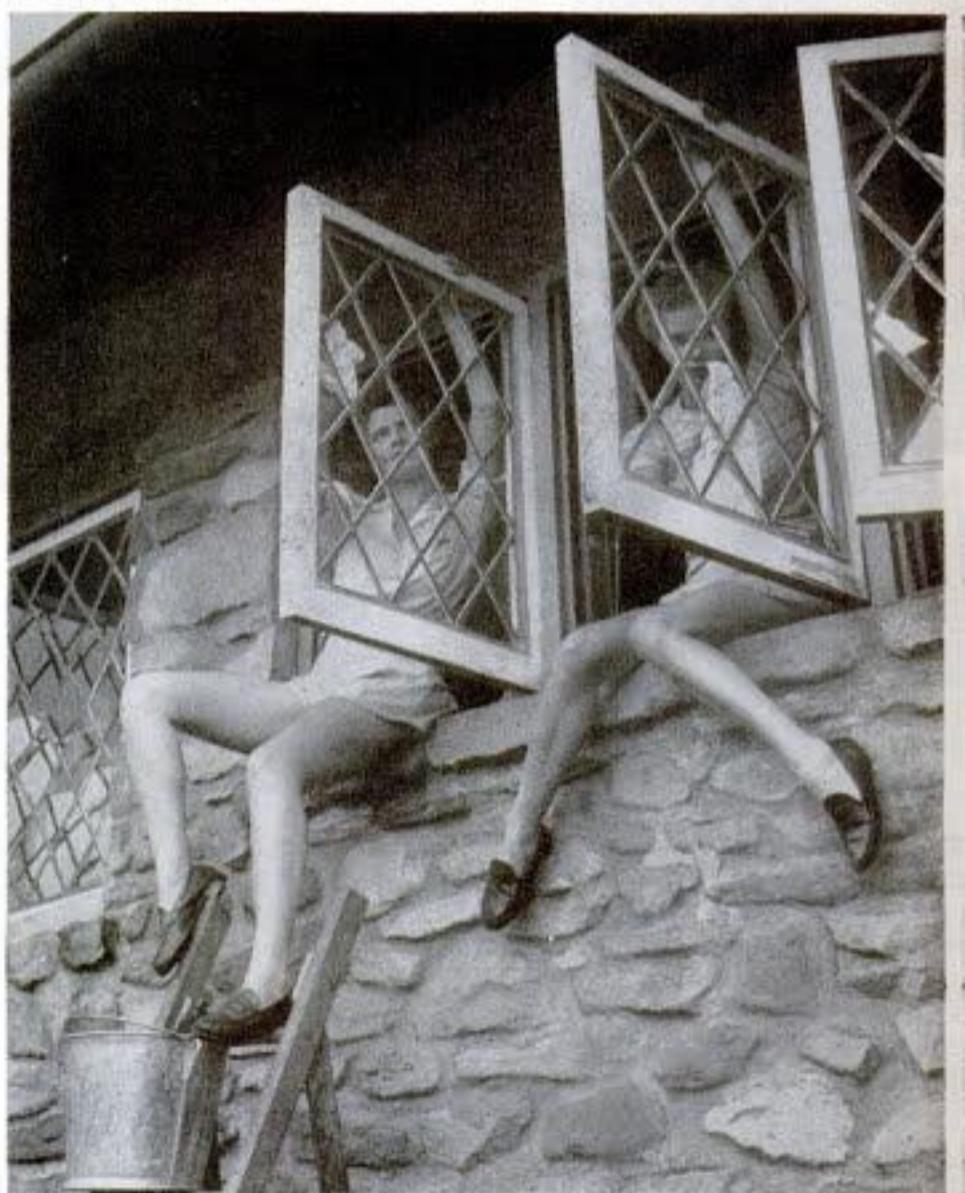
Patching the roof barefoot got Beale 15 splinters. The girls laid new shingles, made up a song called *Shingle Belles* which they sang as they worked. Then they sat down, pulled out splinters.

Life Goes House-Fixing

Four helpful big-city girls spend a working weekend in the country

The old American custom of solving a housing problem by getting friends in for a house-fixing bee has become newly useful with the wartime shortage of hired help. Last month, as a friendly gesture, four girls from New York City traveled 150 miles up into the Catskill Mountains to help rehabilitate a rundown hunting lodge once owned by the rich Drexel family. The new owner of the house gave his guests suggestions for a work program and then turned them loose.

Of the four, Beale Baldwin of Atlanta, Ga. was the only complete tenderfoot. The others—Patsy Unger, Nancy Waring and Jo Lyons—had a speaking acquaintance with country life and Nancy even showed some familiarity and skill in handling scythes and hatchets. By the second day they had acquired sore backs, stiff muscles, blisters, splinters at chores that might have dismayed less enthusiastic guests before they started. They raked, mowed, patched roofs, painted, washed windows, pruned fruit trees and cleaned a swimming pool. As soon as they got bored with a chore, they changed clothes and jobs. The total result of their attempts is questionable, but as they left they promised to come back a few weekends later and finish the job.



Window washing had to be done twice when Nancy and Patsy found a mixture of their own invention made panes dirtier than they were originally. They finished 12, using soap flakes.



Into cold swimming pool, fed by icy mountain spring, Nancy plunged bravely to clean out water lilies, leaves, branches and moss while Patsy tried to dislodge frogs living around edge.



Patsy balances on a ladder to saw dead branches off the fruit tree. She found this the best method after sitting on a limb, straddling it, lying on it. Together the girls pruned 20 trees.

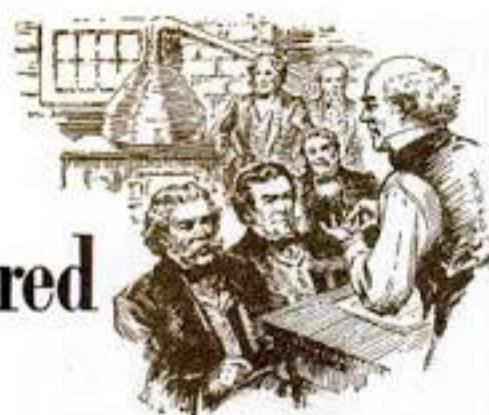


Nancy paints the chicken coop with a practiced stroke. She once painted a barn singlehanded. Legs belong to Patsy, who helped. On the way back to the house they spilled all leftover paint.



Kerosene lamps responded to soap, water and elbow grease. Girls cleaned 17, all of which were used and had to be cleaned again before they left. There were no electric lights in the house.

One Hundred years ago



Colonel James Crow taught
Kentucky distillers how to make fine
Kentucky Straight Whiskey



THOSE IN THE KNOW—ASK FOR

OLD CROW

A Truly Great Name

AMONG
AMERICA'S GREAT WHISKIES



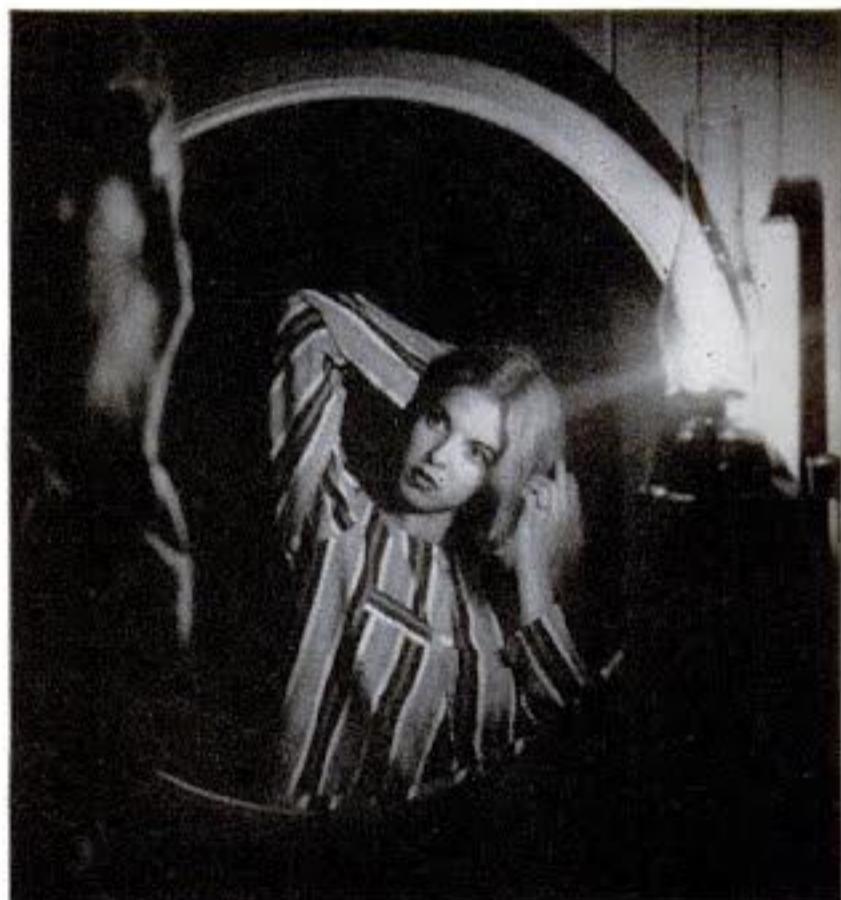
The same quality that founded Old Crow's reputation is yours to enjoy in every drop of this famous whiskey today. Now, as for a century past, Kentucky Straight Bourbon that is surpassingly good.

TODAY, AS FOR GENERATIONS,
Bottled-in-Bond

Kentucky Straight Whiskey • Bourbon or Rye • National Distillers Products Corporation, New York • 100 Proof



BEALE, JO, NANCY AND PATSY FALL HUNGRILY ON SUPPER OF POTATOES.



Beale combs hair by lamp light, then puts it up in curlers, looking glamorous even in heavy pajamas. She models for Jay Thorpe in New York, plans marriage in the fall.



CORN, SALAD, EGGS, MILK, WATERMELON, CAKE, ATE AGAIN AT BEDTIME



Girls talked until 11:30, when they could stay awake no longer. They slept dreamlessly under blankets, didn't hear a porcupine that nibbled at the porch all night.

You're sure
with this spray! It

KILLS ALL 9*

Bug-a-boo is sure death for pests—kills the 9 most bothersome household bugs! (See listing below.) Socony-Vacuum made it so powerful it far exceeds Government requirements for a top-grade spray. Yet it's safe for pets and humans, when used as directed! And this pleasantly scented spray is easy to use—won't stain wallpaper, furnishings or fabrics. Get Bug-a-boo today—and be sure those household pests are gone!

AT HARDWARE, DRUG, DEPARTMENT AND GROCERY STORES

Guaranteed by
Good Housekeeping
INSTITUTE

THE SIGN THE NATION KNOWS







Bug-a-boo

SUPER INSECT SPRAY

* Kills flies, mosquitoes, ants, roaches, bedbugs, silverfish, water bugs, fleas and other common household pests

Also: Bug-a-boo Victory Garden Spray • Bug-a-boo Moth Crystals

Mansfield Jogs



HOT!...NEW!
...RIGHT
FOR YOU!

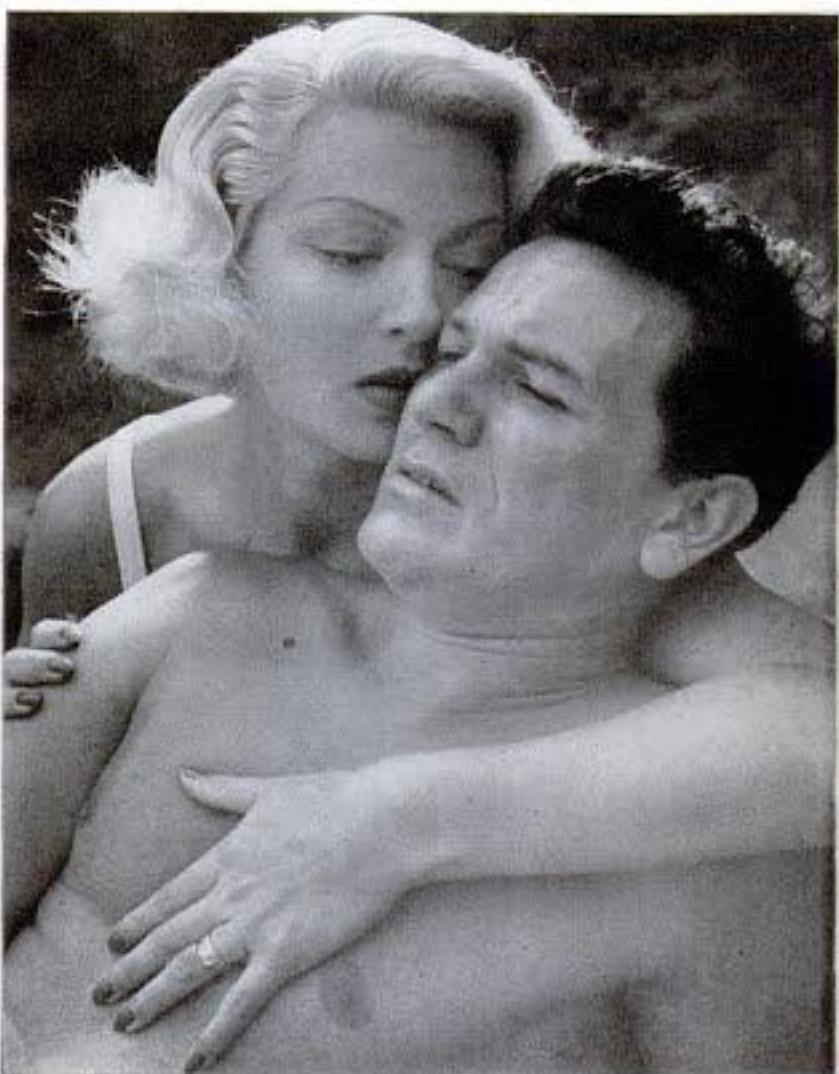
Jogs!... what a shoe!
Jaunty! Two-listed! Perfect team-mate with two-toned jackets, slacks or jeans. And, boy, what comfort! Choose Sandy Bukhlide or Ruddy Grains, Mansfield Shoes, \$5.95 to \$7.95, Whitman, Mass.



CORA (LANA TURNER) STARTS SWIM TO TEST FRANK (JOHN GARFIELD)

LOVE AT LAGUNA BEACH

Lana Turner and John Garfield sizzle sands in making "The Postman Always Rings Twice"



"CORA, CORA, I DON'T WANT TO LIVE WITHOUT YOU," PROTESTS FRANK



CORA STRUGGLES TO ESCAPE FOR OCEAN PLUNGE. FRANK HOLDS HER

Metro-Goldwyn-Mayer bought James M. Cain's tough novel of adultery and murder, *The Postman Always Rings Twice*, in 1934 but thought it was too hot to handle, did not dare make it into a movie. Times changed, however, and so did M-G-M's mind. *Postman* is now being filmed. Having decided to go ahead with its hot story, M-G-M is giving it everything, including a sizzling beach scene in which Lana Turner, wearing a white bathing suit which may become historic, tests the true love of John Garfield, who earlier in the film had helped her murder her husband. These pictures show shooting of this love scene on Laguna Beach near Los Angeles.



CORA TELLS FRANK SHE IS GOING TO HAVE A BABY. CLINCH FOLLOWS

CONTINUED ON NEXT PAGE



What do you see here?

You see a modern highway, of course. And you see what makes it modern—the positive separation between the two moving lanes of traffic, which has proved a lot more effective in preventing collisions than the old painted line down the middle of the road.

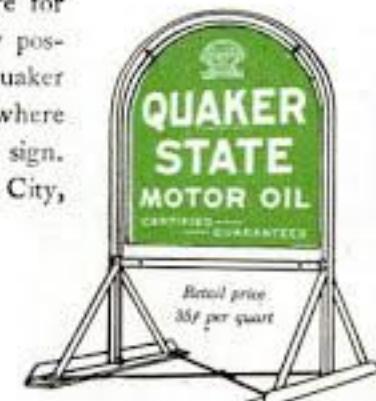
You see more than a modern highway, too, if you're a modern motorist. You see a lesson you can apply to your car—to keep it running longer and better and more satisfactorily.

You see what engineers have known for a long time—that, to prevent friction between any two moving parts, you need positive separation. The kind of positive separation that Quaker State Motor Oil provides for the moving parts of your motor.

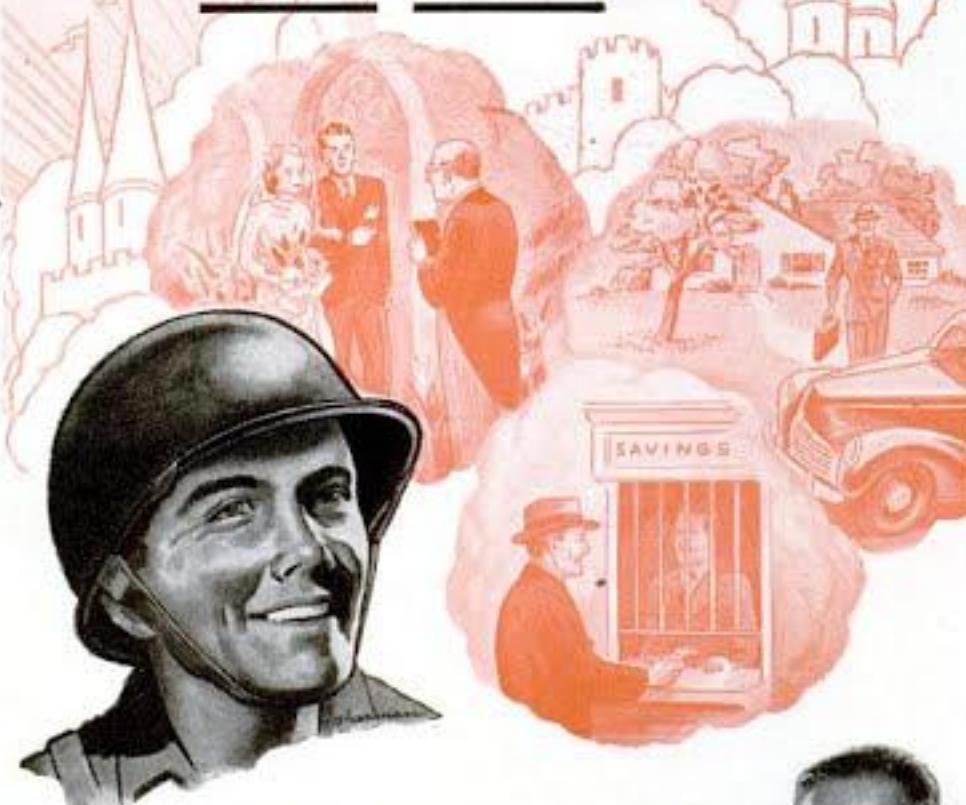
Refined to the highest degree of lubricating perfection from pure Pennsylvania grade crude oil, Quaker State Motor Oil is the natural choice of those who want smooth, economical operation from their car.

In these times especially, it's wise to care for your car for your country in the best way possible—with Quaker State Motor Oil and Quaker State Superfine Lubricants. Ask for them where you see the green and white Quaker State sign. Quaker State Oil Refining Corporation, Oil City, Pennsylvania.

OIL IS AMMUNITION—USE IT WISELY



Can He Turn Those Air Castles Into SOLID STUFF?



"Foxhole dreams deserve every break...but it's going to take more than wishes to make them come true"

SAYS *Bob Bowes*

President and Founder Bowes "Seal Fast" Corp.—Pioneer in Safe Tire Repairs

- Many high hopes are being built in foxholes...in the hearts of millions of fighting sons, husbands, brothers, and sweethearts.

A grateful America just can't let those air castles fade. Neither can we wish them into reality. It is going to take ACTION to assure each homecoming fighting man of a fair opportunity to realize his dreams.

The BOWES PLAN offers action. It aims at recruiting a post-war "Sales Army" capable of doing the fighting and selling which will be needed to create and keep good all the jobs needed for a prosperous and busy America. It will offer to many World War II veterans a firm foothold in the most potentially profitable profession in business...SELLING...where the only salary-ceiling is imposed by a man's own capability.

Under the Bowes Plan selected veterans will be given intensive training

in the fundamentals of the science of salesmanship. Some will then go into desirable jobs in this expanding organization. Some will be put into well-backed businesses of their own, merchandising popular Bowes "Seal Fast" automotive products.

And...if enough other business organizations join in this program, bright futures can be provided for as many veterans as are properly qualified.

If you have a loved one in the armed forces—put him in touch with us. If you are an employer—help raise a post-war "Sales Army" which can win a prosperous peace and turn those air castles into SOLID STUFF!

Write now for full information about the Bowes Plan.

BOWES "SEAL FAST" CORPORATION, INDIANAPOLIS 7, INDIANA

BOWES



Dependable
**TIRE REPAIR
SYSTEM**

Love at Laguna Beach CONTINUED



A TORRID KISS BY MOONLIGHT SELLS THE COUPLE'S RECONCILIATION



FRANK CARRIES EXHAUSTED CORA TO CAR. CRASH LATER KILLS HER

Headed for
Greatness



Bright and Light
as a
Sunny Morning



You taste it at once . . . this extra, this special measure of flavor that's rich and fine, yet light, mellow . . . like a sunny morning. We think you'll agree it's not matched in any other whiskey! Try Schenley Reserve . . . it comes of a great tradition for fine whiskies . . . the most widely enjoyed whiskey in America today!

BLENDED WHISKEY 86 proof. 60% grain neutral spirits. Schenley Distillers Corp., N.Y.C.

SCHENLEY
RESERVE
PRE-WAR QUALITY

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FEATURE SECTION

IN HOLLYWOOD

BY JIMMIE FIDLER

IN HOLLYWOOD...or anywhere, Shredded Ralston is the cereal that helps keep me fit-as-a-Fidler. Those bite size biscuits must pack a peck of energy because when breakfast starts with a bowl of Shredded Ralston ... well, there's none of that before-lunchtime let-down. It's a four-bell cereal for flavor, too! And the miracle is, each biscuit stays crisp in milk...and that's not just "Idol Chatter."

Jimmie Fidler

"Mov... in Hollywood are usu... be better if given a norm... mud." S... they didn't. ites w... w...

JIMMIE FIDLER
is heard Every Sunday Night
Over the Blue Network.

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